

# **Business Structure Database User Guide**

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# **Business Structure Database User Guide**

## **1. Introduction**

### **1.1 The Inter-Departmental Business Register**

The purpose of the Business Structure Database is to create a version of the Inter Departmental Business Register for research use, taking full account of changes in ownership and restructuring of businesses. The IDBR is the key sampling frame for UK business statistics and is maintained and developed by the Business Registers Unit (BRU) within the Office for National Statistics. The construction of the IDBR relies on administrative systems; specifically Value Added Tax (VAT), employee income tax payments (made by employers through the Pay as You Earn system) and Company Registration (for businesses that wish to operate with limited liability). The IDBR is maintained by matching these sources of commercial and administrative data.

### **1.2 Limitations of the IDBR for Research Purposes**

As noted above, the IDBR is designed as a sampling frame holding the live structure of enterprises. While providing a common reference point for the Business Data Linking (BDL) datasets, the IDBR has several limitations when considered as a research tool in its own right. Firstly, the IDBR is not made generally available to researchers, even to those who have access to Statistics of Trade Act data, due to HMRC data being included. Secondly, the IDBR concentrates on current company structure, not historical links, although there is information on the death codes for local units. Demographic analysis is therefore confined to the current situation and is not concerned with backdated information. Whilst the IDBR implicitly contains information on changes to structure, this information is difficult to unpick. Longitudinal information is important to understand changing demographics of enterprise structures. As such, the IDBR does not identify mergers, takeovers and business sales easily and usefully for researchers

### **1.3 Aims of the Business Structure Database**

The limitations outlined above reflect the fact that the IDBR is designed to assist in the production of surveys. The purpose of the BSD is to provide a version of the IDBR that reflects a wide variety of firm demographics. Specifically, the BSD aims to embody the following characteristics:

- record as accurately as possible the life-span of enterprises, takeovers and mergers
- account for restructuring/changes in enterprises etc
- identify accurately birth and death
- be updateable from the IDBR on a regular basis
- be available for research use, including by the IDBR team
- improve demography statistics and allow historical analysis
- incorporate DTI reference number scheme to link to allow direct linkage from DTI data

Within the IDBR, every local unit, reporting unit, enterprise and enterprise group is given its own, unique reference number when it enters onto the IDBR which remains unique to that business whilst it remains, in the same form, on the register. It is therefore possible to make inferences about business entry and exit from the register by looking at the first and last occurrences of reference numbers on the IDBR. However, it is important to distinguish between register entry/exit and actual entry/exit. It is not currently possible to identify whether a firm has ceased trading or if it has merely undergone a change in structure that leads to their original reference number becoming extinct. An important contribution of the BSD is therefore to provide more detail in terms of defining demographic events than has previously been possible.

## **2. Business Demography – Units of Analysis**

### **2.1 Statistical Units**

IDBR units are classified into three types: administrative units, statistical units and reporting units. The administrative units are the VAT traders and PAYE employers. However, in terms of the Business Structure Database, our primary interest is in the statistical units. The IDBR captures the structure of ownership and control of firms and plants and business sites that make up the UK economy using three aggregation categories; the enterprise, enterprise group, local unit which are defined precisely in the EU Regulation on Statistical Units (EEC 696/93) as follows.

#### **Enterprise**

"The enterprise is the smallest combination of legal units that is an organisational unit producing goods or services, which benefits from a certain degree of autonomy in decision-making, especially for the allocation of its current resources. An enterprise carries out one or more activities at one or more locations. An enterprise may be a sole legal unit."

#### **Enterprise Group**

"An enterprise group is an association of enterprises bound together by legal and/or financial links. A group of enterprises can have more than one decision-making centre, especially for policy on production, sales and profits. It may centralise certain aspects of financial management and taxation. It constitutes an economic entity which is empowered to make choices, particularly concerning the units which it comprises."

#### **Local Unit**

"The local unit is an enterprise or part thereof (e.g. a workshop, factory, warehouse, office, mine or depot) situated in a geographically identified place. At or from this place economic activity is carried out for which – save for certain exceptions – one or more persons work (even if only part-time) for one and the same enterprise."

The meaning of these definitions is illustrated in the following example taken from Criscuolo et al (2003). In Table 2.1, Brown is a single firm, operating in a single location, producing goods for a single industry. Brown, being a firm responsible for a

single business activity is referred to as a single plant enterprise. In contrast, Smith and Jones Holdings are a holding company, registered in London. In turn, they own two firms, Smith and Jones, who produce in separate plants. Smith has four plants, Smith North, Smith South, Smith East and Smith West. Jones has a plant, Jones North and an R&D lab, Jones R&D. Smith and Jones Holdings, being responsible for firms with distinct business activities is called an “enterprise group”. Smith and Jones are also enterprises. All plants are called ‘local units’. To qualify as a local unit, a business entity must only consist of one site at a single mailing address. Consequently, if Jones R&D is located a different site to Jones North, the enterprise Jones would consist of two local units. If Jones R&D was located at the same site as Jones North, the two would form one local unit for the IDBR.

Table 2.1: Statistical Units of Analysis

<b>Enterprise Group</b>	<b>Brown</b>	<b>Smith and Jones Holding</b>					
<b>Enterprise</b>	<b>Brown</b>	<b>Smith</b>				<b>Jones</b>	
<b>Local Unit</b>	<b>Brown Plant</b>	<b>Smith North</b>	<b>Smith South</b>	<b>Smith East</b>	<b>Smith West</b>	<b>Jones North</b>	<b>Jones R&amp;D</b>
<b>Reporting Unit</b>	<b>A</b>	<b>B</b>		<b>C</b>	<b>D</b>	<b>E</b>	

## 2.2 Reporting Units

Alongside statistical units, the reporting unit holds the mailing address for the business and is the unit for which businesses report their survey data to ONS. In general, the reporting unit is the same as the enterprise. In some of the more complex cases, enterprises are subdivided into reporting units, and are defined by specifying the appropriate local units from within an enterprise. An example of this within the context of the United Kingdom is the separate classification of local units that are located within Great Britain and Northern Ireland. Note that unlike on the previous CSO business register, local units and reporting units are distinct on the IDBR. In particular a reporting unit is not also a local unit. A reporting unit and a local unit may be co-located but have distinct identities. The local units that form a reporting unit have employment that sums to the reporting unit. There is no residual employment accounted for by the reporting unit itself. In the context of the above example, Brown forms a single reporting unit. Smith chooses to report on three mutually exclusive parts of its enterprise (B, C and D) whilst Jones has decided to combine its local units.

### **3. Data Sources**

Version 1 of the BSD is constructed from annual snapshots of the IDBR. The IDBR is a live register updated continuously. VAT traders and PAYE employers are matched to generate the standard European Union “enterprise”. The coverage of the IDBR is limited by voluntary registration below the VAT registration threshold and exclusion of employers for whom all their employees are below the income tax threshold. Enterprises that are not registered for VAT AND who do not operate a PAYE scheme will not be included on the register. The register comprises of just over 2 million enterprises, out of an estimated total of 4.3 million. This latter estimate is that published by the DTI Small Business Service using the Survey of Personal Incomes to supplement the IDBR data. However, it is estimated that the enterprises on the IDBR represent 99% of economic activity. Enterprises are combined to form enterprise groups using information from Dun and Bradstreet supplemented by the VAT system. A limitation of the administrative registration process is a lack of registration of local units. For each enterprise, ONS maintains a list of “local units” through its Annual Register Inquiry.

Snapshots from the IDBR are available at the level of the enterprise and the level of the local unit. The local unit files can be linked to the enterprise files by means of corresponding enterprise reference number that is included for each local unit. The local unit snapshot files contain similar information to that which is available at the enterprise level. The snapshot files include among others the following variables:

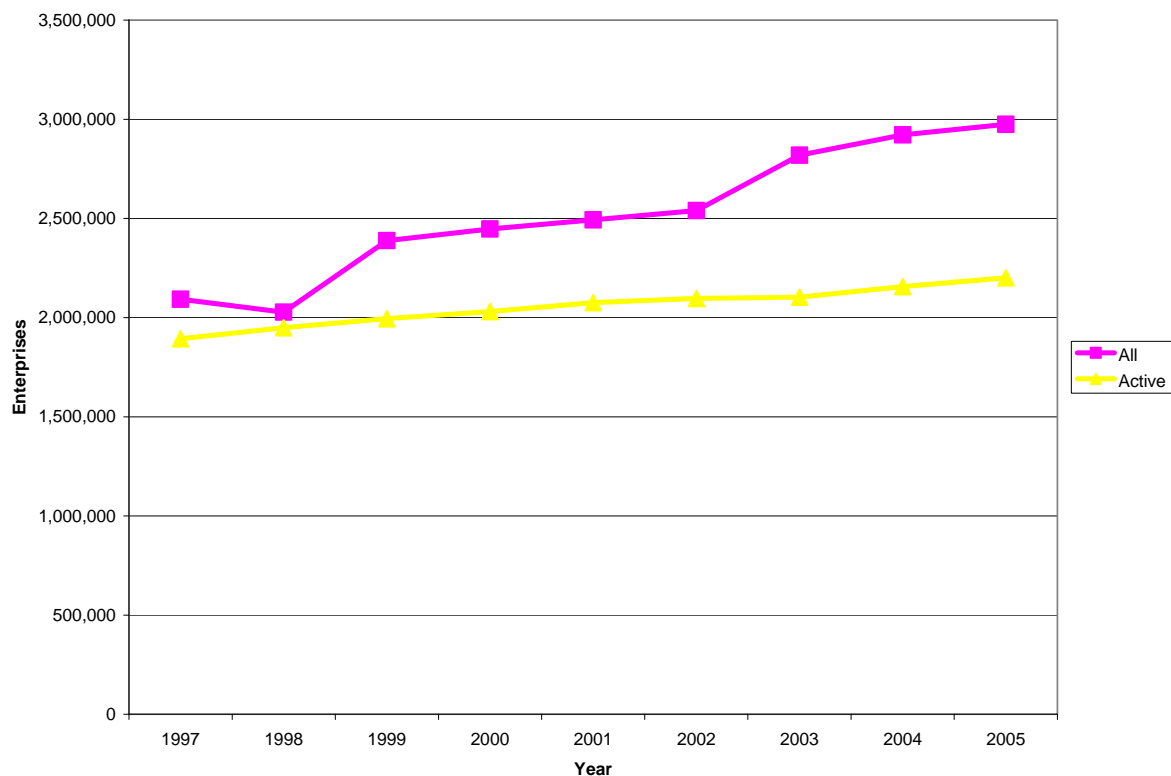
- Enterprise reference number (entref)
- Enterprise group reference number (wow)
- Immediate foreign ownership (imm\_foc)
- Ultimate foreign ownership (ult\_foc)
- Standard Industrial Classification
- Birth date
- Death date
- Employment and employees
- Turnover
- Number of local units (live\_lu)

- Number of reporting units (live\_ru)
- Postcode

The IDBR snapshot files include both active and inactive enterprises. The definition of the population of active enterprises is those enterprises with turnover and/or persons employed greater than zero and at least one administrative unit linked to the enterprise.

Figure 3.1 shows the number of enterprises contained within the BSD. In 1997 the BSD contains information on 2.1 million enterprises, of which approximately 1.8 million were live. By 2005, the BSD contains information on 2.2 million live enterprises. The retention of information on inactive enterprises on the IDBR results in approximately 3 million enterprises appearing within the BSD during 2005.

Figure 3.1: Enterprises in the Business Structure Database



## 4. Demographic Events

### 4.1 General Typology

Demographic events are events that impact upon the existence of statistical units and the links between them. As previously discussed, the classification of demographic events reflects the central position of the enterprise in the statistical system. This section describes demographic events concerning enterprises. This section is based upon the general typology of demographic events is provided by Eurostat<sup>1</sup> and is presented in the box below.

- 1. CHANGES IN THE EXISTENCE OF COMBINATIONS OF PRODUCTION FACTORS**
  - 1.1 Emergence of combinations of production factors**
    - 1.1.1 Birth of an enterprise group
    - 1.1.2 Birth of an enterprise
    - 1.1.3 Birth of a local unit
  - 1.2 Disappearance of combinations of production factors**
    - 1.2.1 Death of an enterprise group
    - 1.2.2 Death of an enterprise
    - 1.2.3 Death of a local unit
- 2. CHANGES IN THE DISTRIBUTION OF PRODUCTION FACTORS**
  - 2.1 Redistribution of the production factors within one enterprise (over local units)**
  - 2.2 Redistribution of the production factors of more than one enterprise**
    - 2.2.1 Concentration of enterprises**
      - 2.2.1.1 Concentration with no enterprise group involved
      - 2.2.1.2 Concentration within an enterprise group
      - 2.2.1.3 Concentration involving more than one enterprise group
    - 2.2.2 De-concentration of enterprises**
      - 2.2.2.1 De-concentration with no enterprise group involved
      - 2.2.2.2 De-concentration within an enterprise group
      - 2.2.2.3 De-concentration involving more than one enterprise group
    - 2.2.3 Transfer of production factors between enterprises**
      - 2.2.3.1 Transfer of a local unit with no enterprise group involved
      - 2.2.3.2 Transfer of a local unit within an enterprise group
      - 2.2.3.3 Transfer of a local unit between enterprise groups
    - 2.2.4 Restructuring**
      - 2.2.4.1 Restructuring with no enterprise group involved
      - 2.2.4.2 Restructuring with an enterprise group
      - 2.2.4.3 Restructuring involving more than one enterprise group
  - 2.3 Transfer of an enterprise between enterprise groups**

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<sup>1</sup> Chapter 12: A General Overview of Demographic Events: Business Register: Recommendations Manual, European Commission (2003)

## 4.2 Defining Demographic Events at the Enterprise Level

The derivation of demographic events from information contained within business registers is based upon the consideration of 2 key dimensions.

### ***The continuity of the enterprise***

Whether an enterprise continues to appear within a business register is important in terms of identifying demographic events. An obvious example is the case relating to the death of an enterprise, where the enterprise loses its identity. However, the takeover of an enterprise will also result in an enterprise losing its identity. In contrast, the redistribution of production factors does not necessarily imply identity loss if both enterprises continue to trade.

### ***The number of enterprises involved in an event***

Both the numbers of enterprises before and after an event are relevant. For instance, both the birth of an enterprise and the merger of two existing enterprises both results in the emergence of a new enterprise identity. However, these demographic events differ, among other things, in terms of the number of enterprises involved.

The application of these two criteria makes it possible to derive and define demographic events at the enterprise level in a systematic way. Application of these criteria results in events at the enterprise level as listed below. The terminology is in accordance with that used by Eurostat.

### 4.2.1 Existential Changes

There are events involving only one enterprise after the event and none before or only one enterprise before and none after.

The **Birth** of an enterprise is the bringing into being of an enterprise where no enterprise existed before and no other enterprises are involved. Since the enterprises is an organisational unit producing goods or services, a birth amounts to the creation of a combination of production factors.

The **Death** of an enterprise is the opposite to the above. The death of an enterprise amounts to the dissolution of a combination of production factors.

The restriction that these events only involve one enterprise is important in terms of utilising information within the IDBR to identify births and deaths. Within business registers, births and deaths will result in the creation and deletion of identity numbers. However, other events involving many enterprises will may also result in the creation and deletion of enterprise numbers. An important contribution of the Business



Structure Database is the separate identification of demographic events that would have previously been considered as births and deaths.

#### 4.2.2 Concentration

These are categories of events involving more than one enterprise before the event and one enterprise after the event

Enterprises may integrate to the extent that the number of existing enterprises is reduced, that is, concentration takes place. If two enterprises integrate entirely, the enterprises involved may either lose their identity because they are dissolved beyond recognition in the new organisation or one of the enterprises may remain the same. In the latter case, the other enterprise is generally much smaller; it is merely absorbed by the larger enterprise which largely remains the same.

If both enterprises lose their identity, the event is called a **merger**.

If one of the enterprises keeps its identity, it is called a **take-over**.

In the case discussed it is not possible that both keep their identity, because the number of enterprises would not change. Similarly, although in the case of concentration the number of enterprises is reduced and that such events may all entail the deletion of records in the business register, mergers and takeovers do not involve the death of units.

It should also be pointed out that as a consequence of a take-over some characteristics of the enterprise that keeps its identity might change. For example, it may enter a different size class or get a different principal economic activity.

#### 4.2.3 De-concentration

These are events involving one enterprise before and more than one enterprise after the event.

The events of de-concentration mirror those of concentration. The counterpart of the merger is the **break-up** and the counterpart of the take-over is the **split-off**. In a break-up, the enterprise is divided in such a way that none of the new enterprises keeps the identity of the original enterprise. In a split off, the new enterprises are generally much smaller and the identity of the original enterprise is retained by the larger enterprise.

#### **4.2.4 Changes within an Enterprise**

These are events that do not involve creations or deletions within business registers.

A **change of ownership** is where a new legal unit is formed to take over the activities of an existing enterprise. An example is where a sole proprietor retires and sells the enterprise to a new entrepreneur. With a change in enterprise group, the same combination of production factors exist before and the event. After the event, the enterprise belongs to a different enterprise group that did not exist before.

Finally, a **trade sale** occurs when part of the activity of an enterprise group is transferred to another enterprise group. After the transfer, both enterprise groups continue to trade. Note that in contrast to divestment, the second enterprise group did previously exist and as such a trade sale is not classified as a deconcentration.

### **4.3 Defining Demographic Events at the Local Unit**

In accordance with Eurostat, three demographic events at the level of the local unit are distinguished; birth, death and local unit transfer. It is acknowledged at the outset that extensions of this typology, for instance with categories of concentration and de-concentration are possible. For example, concentration can occur to adjacent local units if they belong to different enterprises that merge. The link between enterprise events and local events is complex.

#### **4.3.1 Births/Deaths**

The birth of a local unit is the emergence of a local unit, which did not exist before, and the death is its disappearance. Since the local unit is the part of an enterprise, situated in a geographically identified place, and the enterprise is a combination of production factors, the birth of a local unit amounts to the creation of a (partial) combination of production factors at a geographically identified place. A death is their dissolution.

#### **4.3.2 Local Unit Transfer**

Every local unit is linked to a single enterprise. Therefore, if a link ceases to exist and the local unit is continued (i.e. does not lose its identity), a new link with another enterprise will come into being. Similarly, if a link from an existing local unit to an enterprise comes into being, the link it had with the enterprise of which it was part ceases to exist. Clearly changes of links amount to transfers of local units between enterprises.

Table 4.1: Identifying Demographic Events at the Enterprise Level

		Number of Enterprises	
	Definition	Before Event	After Event
<b>Existential Changes</b>			
Birth	Bringing into being an enterprise where no enterprise existed before and no other enterprises are involved in the event	-	1
Death	Opposite to above	1	-
<b>Concentration</b>			
Merger	Two enterprises integrate entirely – both enterprises lose their identity	n	1
Takeover	Two enterprises integrate entirely – one enterprise retains its identity	n	1
<b>De-concentration</b>			
Break-up	Enterprise is divided in such a way that neither of the new enterprises keeps the identity of the original enterprise	1	n
Split off	Enterprise is divided in such a way that the larger of the original enterprises retains the identity of the original enterprise	1	n
<b>Changes within an Enterprise</b>			
Change of ownership	A new legal unit is formed to take over the operations of the enterprise. [Not a demographic event at level of enterprise]	1	1
Trade sale	Part of the activity of an enterprise group is transferred to another enterprise group. Both enterprise groups continue to trade	1	1

## **5. Identifying Demographic Events from the IDBR**

### **5.1 Outline of Methodology**

To reconstruct a demographic event, one needs to know which enterprises were involved in the event. For birth and death information, this is straightforward. However, for cases relating to concentration and de-concentration, for the creation of joint ventures and for restructuring, it is necessary to register a link **over time** between the enterprises involved. For instance, in the case of a merger the original enterprises have to be linked to the emerging enterprise and in the case of a takeover, the enterprise which is taken over has to be linked to the surviving enterprise (e.g. by a pointer on the record). If such links are recorded, with dates, all events can be reconstructed. This implies that the register has to retain information related to deleted enterprises and information that links enterprises across years.

The IDBR does not register a link over time between the enterprises involved in demographic events. The only mechanism for linking enterprises and local units between successive years of the IDBR is in terms of matching enterprise group, enterprise and local unit reference numbers. In terms of the construction of a Business Structure Database, the question arises as to how the creations and deletions of id numbers within the IDBR can be translated to the identification of definition demographic events. For example, a birth, merger, break-up, split off, joint venture or restructuring would each result in the creation of a register creation. Similarly, the cause of a deletion can be death, a merger, a takeover, a break-up or restructuring. Registrations and deletions are therefore not sufficient to identify demographic events on their own.

A schema of the demographic events that have been identified with information contained within the IDBR is outlined below in Table 5.1. The table refers to demographic events at the level of the Enterprise Group and Enterprise. That is, these demographic events are based upon observed relationships between Enterprise and Enterprise Group reference numbers. However, the principals behind the identification of these demographic events are also applicable at the level of the Enterprise and the Local Unit. The BSD therefore contains information that details demographic events involving a) Enterprise Groups and Enterprises and b) Enterprises and Local Units.

Table 5.1: Identifying Demographic Events from the IDBR:

Event	Description	Changes in IDBR
Enterprise Group Birth	Bringing into being an enterprise group where no enterprise existed before and no other enterprise groups are involved in the event	WOWREF1 created. ENTREF1i...1k created
Enterprise Group Death	Opposite to above	WOWREF1 deleted. ENTREF1i...1k deleted
Takeover	Most of the activity in an enterprise group is absorbed into another enterprise group; the remaining activity is closed or transferred to another group.	WOWREF1 deleted, ENTREF1i...1k transferred to WOWREFN. WOWREFN <b>DID</b> exist during t-1
Merger	Two or more enterprise groups combine to form a new one containing most of the activity of the previous units. The source enterprise groups are closed	WOWREF1.....WOWREFN deleted, ENTREF1i...1k-ENTREFNi...ENTREFNk transferred to WOWREF#. WOWREF# did <b>NOT</b> exist during t-1
Change of Ownership	A new legal unit is formed to take over the operations of the enterprise group.	WOWREF1 deleted. WOWREF# created. ENTREF1i...1k transferred to WOWREF#
Divestment	Part of the activity of an enterprise group is split off into a new enterprise group. Both enterprise groups continue to trade	WOWREF1 remains, ENTREF1i...1k transferred to WOWREFN. WOWREFN did <b>NOT</b> exist during t-1
Trade sale	Part of the activity of an enterprise group is transferred to another enterprise group. Both enterprise groups continue to trade	WOWREF1 remains, ENTREF1i...1k transferred to WOWREFN. WOWREFN <b>DID</b> exist during t-1
Break-up	An enterprise group is broken up into two or more enterprise groups. The original enterprise group ceases to exist	WOWREF1deleted, WOWREF#...N created. Some of ENTREF1i...1k identifiable in WOWREF#...N. WOWREF#...N did <b>NOT</b> exist during t-1

## **5.2 Limitations of the Approach**

### **5.2.1 Complexities of Demographic Events**

Ideally, demographic events should only be classified into one category of the typology. However, a real life event may not match the definition of any category precisely. For example, it is possible that a business organisation is restructured and at the same time some of the production factors disappear. The derivation of demographic events based upon the analysis of the relationships between reference numbers may not be able to fully capture the complexity of demographic events. Reflecting this, we derived a final demographic event marker to indicate the occurrence of demographic event has occurred (as identified by some change in reference numbers) that does not match any of the detailed definitions of demographic events outlined in Table 5.1. The number of such demographic events is generally small. Abstracting from births and deaths which dominate demographic events, demographic events not elsewhere classified account for approximately 5-10% of the detailed demographic events identified in Table 5.1.

### **5.2.2 Dynamics of Demographic Events**

A further complexity in classifying demographic events relates to the dynamics of demographic events. The demographic events markers derived for the BSD are based upon the continuity of reference numbers and the links between reference numbers between successive annual cross sections of the IDBR snapshot files. Making comparisons between successive annual snapshots may not fully capture events that have taken place during the course of the year. Similarly, the snapshot may have been taken at a time when a group of enterprises were in the process of undergoing some form of demographic change.

### **5.2.3 Continuity of Reference Numbers**

The construction of the demographic variables is based upon an assumed continuity of reference numbers over time and changes in the observed relationships between reference numbers. For our purposes, it is assumed that Enterprise Groups, Enterprises and Local Units are allocated a unique reference number which is retained for the entire period that the Enterprise/Enterprise Group appear within the BSD.

As an administrative register, the IDRB which has generally been more concerned in achieving an accurate picture of business activity at a single point in time rather than achieving continuity over time. For example, abstracting from issues related to the

general continuity of IDBR, all enterprise group reference numbers changed in 1984 and 1997, whilst all local unit reference numbers changed in 1994 (see Criscuolo, Haskel and Martin, 2003). The derivation of demographic event identifiers in this version of the BSD therefore is based upon that period of the BSD that is derived from the IDBR snapshot files; namely 1997-2005.

Even within the IDBR snapshot files, there are problems in terms of deriving demographic event identifiers based upon an assumed continuity in reference numbers.

Firstly, analysis reveals that there are some gaps in the existence of enterprises within the IDBR; i.e. where an *entref* is observed in  $t-1$  and  $t+1$  but not  $t$ . As noted earlier the coverage of the IDBR is limited by voluntary registration below the VAT registration threshold and exclusion of employers for whom all their employees are below the income tax threshold. Therefore, it is possible that enterprises can fall outside the scope of the register for a year. There is, however, no case that the gap for *entref* is longer than one year. This observation is likely to be related to the Eurostat rule that the enterprise should be treated as dead if it goes missing for more than 1 year. To prevent these missing enterprise reference numbers affecting the construction of demographic event markers, 'ghost enterprises' have been created to fill in the missing observations.

Secondly, Enterprise Group reference numbers are uploaded onto the IDBR from an external source during February each year. As a live register, enterprises that come into existence after February will not be able to be allocated a real Enterprise Group reference number until the following February. To overcome this problem, a dummy Enterprise Group reference number is created. However, during the upload of Enterprise Group reference numbers during the following February, the dummy number will be replaced by a real Enterprise Group reference number. Based upon the methodology for deriving demographic events, the re-allocation of an enterprise from a Dummy Enterprise Group to a real Enterprise Group could result in a change of ownership.

## 6. Overview of the Business Structure Database

### 6.1 Organisation of Files

The Business Structure Database folder contains all the BSD data in a flat file listing. For all years between 1997 and 2005, there exists

- BSD\_yy.dta                      enterprise level data for year 'yy'
- BSDLU\_yy.dta                  local unit level data for year 'yy'

where 'yy' denotes the year to which the data relates.

### 6.2 Variables in the BSD

The variables contained in these files are presented in Tables 6.1. Definitions of these variables are outlined below:

**LUREF**, **ENT-REF** and **WOWREF** are each used to hold a reference numbers that uniquely identifies the local unit, the enterprise and the enterprise group respectively.

The IDBR snapshot files retain information on inactive enterprises. **INACTIVE** identifies inactive enterprises. When undertaking analyses, users of the BSD may wish to select on active enterprises only.

**SIC** contains information relating to industrial classification based on SIC92.

**Live\_LU** and **Live\_RU** contains information on the number of live local units and reporting units respectively within a particular enterprise.

**Employment and Turnover** holds the employment totals and turnover derived from administrative data (PAYE returns) used to construct the IDBR. It is noted that those enterprises selected for the ABI have the opportunity to provide employment/turnover information directly in their returns to the ABI. For consistency across enterprises, the information contained within the BSD is based upon register information. It is noted that this will be the only source of information available for a majority of enterprises, particularly smaller organisations who are only sampled for the purpose of the ABI.

**Birth** and **Death** provide information on the years of birth and death of enterprises and local units.

**Deathcode** is recorded at the level of the local unit and does not provide direct information about Enterprises, Reporting units or Enterprise Groups.



The available Death Codes are:

- 0 - Live
- 1 - Dead - Ceased Trading
- 2 - Dead - Change of Legal Ownership
- 3 - Dead - Liquidation
- 4 - Dead Dropped below threshold
- 5 - Dead - Dormant
- 6 - Live - Admin Dead, IDBR Live
- 7 - Dead - Admin Dead, IDBR Dead
- 8 - Dead - IDBR Dead
- 9 - Dead, reason other than 1,2 or 4
- E - Dead Employment zero
- M - Dead - Merger out
- S - Dead - Successor out
- T - Dead - Transfer Out

**Imm\_focc** and **Ult\_focc** identify foreign owned units and country of ownership. A complete list of codes is provided in the User Guide to the ARD.

**Status** provides information about the legal status of the enterprise or local unit. The available status codes are:

- |   |                         |
|---|-------------------------|
| 1 | Company                 |
| 2 | Sole proprietor         |
| 3 | Partnership             |
| 4 | Public corporation      |
| 5 | Central government body |
| 6 | Local authority         |
| 7 | Non-profit making body  |

**PAYE** and **VAT** are available from 1997 onwards. These markers indicate whether the administrative data within the IDBR is derived from both PAYE and VAT data. Combining these measures provides a 'quality' measure within the IDBR, where good quality indicates that there is a match for the enterprise in terms of it embodying information from both PAYE and the VAT register. In these instances, we can be sufficiently confident that the 2 pieces of administrative information relate to a single source. With unmatched data, there is a danger of double counting.

**DEMVAR** provides a demographic event identifier. The methodology behind the derivation of the marker is provided in Table 6.1. The derivation of the demographic identifier is dependent upon continuity in enterprise group, enterprise and local unit reference numbers over time. Demographic event identifiers can be derived which depict a) the relationship between enterprise groups and enterprises and b) the relationship between enterprises and local units. Both (a) and (b) have been derived

for within the BSD. That is, demographic event identifiers are available in both the enterprise and local unit files.

The derived enterprise level demographic identifier takes the following values:

1. Birth
2. Death
3. Takeover
4. Merger
5. Change of Ownership
6. Divestment
7. Trade-sale
8. Break-up
9. Demographic event nec (not elsewhere classified)

Within DEMVAR, the markers for birth and death have been derived on the basis of the observed creation and deletion of enterprise reference numbers. It should be noted that the variables relating to year of birth (**BIRTH**) and year of death (**DEATH**) will provide a more accurate measure of existential demographic events for enterprises and local units.

**Demvarred** is an additional demographic event identifier that indicates whether a local unit has been transferred across enterprise groups since the previous year.

1. Yes
2. No

**DTIref** incorporates a DTI reference number scheme to link to allow direct linkage from internal DTI data.

**Table 6.1 Variables in the BSD Files**

	<b>Enterprise</b>	<b>Local Unit</b>
<b>Entref – Enterprise Reference Number</b>	<b>X</b>	<b>X</b>
<b>Luref – Local Unit Reference Number</b>		<b>X</b>
<b>WOWref – Enterprise Group Reference Number</b>	<b>X</b>	<b>X</b>
<b>Inactive</b>	<b>X</b>	<b>X</b>
<b>SIC - Industry</b>	<b>X</b>	<b>X</b>
<b>Live_LU – Number of live local units</b>	<b>X</b>	<b>X</b>
<b>Live_RU – Number of reporting units</b>	<b>X</b>	<b>X</b>
<b>Employment</b>	<b>X</b>	<b>X</b>
<b>Turnover</b>	<b>X</b>	
<b>Birth of Enterprise/Local Unit</b>	<b>X</b>	<b>X</b>
<b>Death of Enterprise/Local Unit</b>	<b>X</b>	<b>X</b>
<b>Death Code</b>		<b>X</b>
<b>Imm_foc – Immediate Foreign Ownership</b>	<b>X</b>	<b>X</b>
<b>Ult_foc – Ultimate Foreign Ownership</b>	<b>X</b>	<b>X</b>
<b>Status – Legal Status</b>	<b>X</b>	<b>X</b>
<b>PAYE – live PAYE indicator</b>	<b>X</b>	<b>X</b>
<b>VAT – live VAT indicator</b>	<b>X</b>	<b>X</b>
<b>Postcode</b>	<b>X</b>	<b>X</b>
<b>Demvar</b>	<b>X</b>	<b>X</b>
<b>Demred – Local Unit Demographic</b>		<b>X</b>
<b>DTIref - Reference Number</b>	<b>X</b>	<b>X</b>

## **7. Future Developments**

This version of the BSD should be considered as a proto-type. Please direct any comments or questions relating to the BSD to the contact named at the front of this user-guide. The BSD is continuing to be developed. Areas of work currently being undertaken include:

- Adding earlier years of data to the BSD.

This information will be derived from the recently up-dated version of the Annual Respondents Database (ARD2). In contrast to the IDBR snapshot files, the fundamental unit of analysis within the ARD is the reporting unit. Extending the analysis back to earlier years will require the aggregation of the ARD to the level of the enterprise.

- Refinement of demographic event identifiers.

The BSD currently identifies demographic events that occur between Enterprises Groups/Enterprises and events that occur between Enterprises/Local Units. What is the most appropriate level of analysis for demographic events? How do demographic events at these 2 levels of business structure relate to each other?

- Validation of the BSD.

The derivation of demographic event identifiers is based upon assumptions regarding the consistency and continuity of reference numbers held in the IDBR. However, there are concerns regarding the validity of these assumptions. Detailed case studies will be undertaken to consider whether the information held within the BSD actually reflects 'real life' events.

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**Joint UNECE/Eurostat Seminar  
on Business Registers  
(Luxembourg, 25-26 June 2003)**

## **DISSEMINATION OF INFORMATION ON BUSINESS REGISTERS IN THE UK**

Invited paper submitted by the Office of National Statistics of United Kingdom\*

### Overview

1. The Inter-Departmental Business Register (IDBR) is the key sampling frame for UK business statistics. It is maintained and developed by the Business Registers Unit within the Office for National Statistics (ONS). A large number of outputs (both data and metadata) are produced and disseminated to a wide range of users. Register data are also used as a source for information published by various public and private sector organisations. This paper starts by describing these information flows, and then discusses the issues and constraints concerning quality, dissemination policy and confidentiality. It also considers possible drivers for future developments.

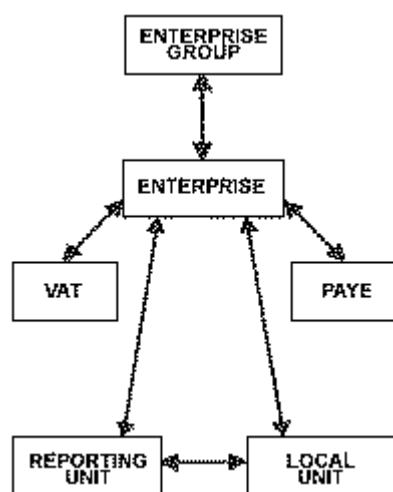
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\* Prepared by John Perry and Steve Vale, Office for National Statistics, United Kingdom.

### Sources and maintenance of the business register

2. The UK does not have a comprehensive business registration system but instead relies on registration for specific administrative purposes. The main administrative systems are Value Added Tax (VAT), employee income tax payments (made by employers through the PAYE, the "Pay As You Earn" system), and Company Registration (for businesses that wish to operate with limited liability). A register of Intrastat traders is linked to the VAT system. The IDBR is maintained by matching these four administrative sources.

3. VAT traders and PAYE employers are matched to generate the standard European Union "enterprise". For each enterprise, the ONS maintains lists of "local units" through its annual register survey. Enterprises are combined to form "enterprise groups" using information from Dun and Bradstreet supplemented by the VAT system. For survey purposes, enterprises may report for themselves as a single reporting unit or be split into reporting units defined by lists of local units within the enterprise.



### Register data in the public domain

4. The administrative departments publish some information from their registers. VAT is managed by the Customs and Excise department, who produce some limited analyses of VAT traders (1). Companies House also publishes summaries from its Company Registration system (2). These outputs are limited by the rules governing the administrative systems and may not represent the economic reality.

5. The IDBR is the business survey frame for government statistical surveys. These surveys generate their own outputs, using the information from the IDBR to produce estimates from samples. The IDBR itself provides a rich source of information relating to business structures, location of business activity and business demography. The advantage of the business register is that it holds information for all units and analyses are available at the time of selection rather than after a delay (up to two years for annual surveys). The

disadvantage is the limited range of data that are held on the IDBR and possible quality problems: the quality of the IDBR is set for sampling purposes and not for analysis.

6. There are two ways to view the business register:
  - Counting live business units to represent the current situation for business activity;
  - Examining the birth and death dates to reconstruct the business situation at a point in time.
7. The benefit of the first approach is its immediacy. The disadvantage is that there will always be lags in registration and deregistration that can differ: registration of deaths tends to be slower than registration of births.
8. The benefit of the second approach is that, with careful estimation, it can produce estimates of the real situation at any point in time and revise these as the information improves. The disadvantage is that there will be some delay in producing the estimates.
9. The ONS publishes data mainly for enterprises and local units using the first approach: that is from a point in time snapshot of the IDBR. The main tool for disseminating IDBR data in the public domain was, from the early 1970s until 2000, a paper publication, Business Monitor PA1003 "Size Analysis of UK Businesses". During the late 1990s this publication was also made available through the ONS web site. A shift in demand from paper to electronic data has meant that since 2001 this publication has been produced purely as a web based output.
10. This publication contains detailed information on all VAT registered enterprises in the UK, including cross tabulations by size (employment and turnover), economic activity, legal form and location. Similar tabulations are also available at the local unit level (manufacturing only up to 2002, whole economy from 2003). Data for recent years can be found on the National Statistics web site (3).
11. In addition to this key publication, the IDBR provides an input to compendia of statistics, mainly at the sub-national level. A good example of this is the ONS Region in Focus publication for the South West (4).
12. The ONS also produces extracts and analyses for other organisations. The main example of this is the data supplied to the Small Business Service, an agency of the UK Department of Trade and Industry (DTI), to produce estimates of the number of small and medium-sized enterprises, business registrations, de-registrations and survival (5). This uses the second method: that is it takes an extract of units on the business register and, using birth and death dates, creates stock, birth and death estimates for a number of years. For this work, adjustments are made to the estimates for the latest years to reflect the delay in the registration process.
13. The ONS has also started to provide UK enterprise demography data to Eurostat to be published alongside data from other countries (6). Data are also provided to demonstrate

compliance with the EU Business Registers Regulation through an annual questionnaire, although Eurostat does not yet have permission from Member States to publish the results of this.

14. The Business Registers Unit also offers a bespoke data service to customers in the private sector, including academics, businesses and individuals, as well as to the UK Parliament. Non-disclosive tabulations of basic register data are provided for a fee based on the time taken to produce and check the required data. In the year to the end of March 2003, just over one hundred customers used this service, generating total revenue for the ONS of almost £38,000.

15. The demand for data has increased in recent years. To meet this increasing need, for mainly sub-national data, the content of the annual business register publication is being reviewed. More information on local units and a wider range of geographical areas are likely to be included.

16. The UK government has long recognised the need for data for informed decision-making. Management of its current social policy requires statistics for small areas. To do this, it has funded a programme for the development of "Neighbourhood Statistics". While primarily social, the economic background to the areas is important. This has meant some investment in improving the quality of the business register and the range of small area analyses. Coherence of the statistics for each geographic area is important and a standard geography based on building blocks created from the 2001 population census is being introduced. The range of outputs from the business register will increase during 2004.

#### Register data used within UK Government

17. Register data are used in various ways within the public sector in the UK. The IDBR is the sampling frame for official surveys of businesses in the UK. Therefore key outputs are stratified samples, and supporting population data. The de-centralised nature of official statistics in the UK means that there are many different customers in a range of government departments. The key issues concerning these data releases are confidentiality and legality. These are discussed in detail in the section on policy and protocols below.

#### Data available

18. The business register holds the information needed for efficient selection and despatch of samples.

Business Reference - This will be the VAT trader number, employer reference or company number for administrative units, the Dun and Bradstreet number for enterprise groups, and numbers generated within the ONS for enterprises, local units and reporting units. In addition, we hold business references for local units that are used by the businesses themselves in conducting their activities.



Name - This is the legal name of the business, if it is registered at Companies house, the name of the sole proprietor, the names of the partners in a partnership, the name of government bodies and non-profit organisation.

Trading Style - This will be the name by which the business wishes to be known to customers.

Address and postcode - The address complies with the British Standard (BS7666) and the postcode is that allocated by the postal authorities. All postcodes are validated against the postal authority address file.

Legal status - Seven categories of legal status are maintained: company, sole proprietor, partnership, public corporation, central government, local government, non-profit organisation.

Employees - This is the standard ILO definition. It counts each employee as one unit, irrespective of the hours worked within the business.

Employment - This is the sum of employees and working proprietors.

Turnover - This is held as £'000 and is the annual turnover, mainly from the VAT trader system. It is not available for local units.

Industrial classification - This is the UK five-digit implementation of the European standard NACE Rev. 1.1.

Location - This is based on the postcode. A comprehensive range of geographical areas is supported providing flexibility for analysis.

Selection and receipt information - This is held for all business units selected for surveys and provides the basis of selections, overlap control, response chasing and compliance planning and reporting.

## Metadata

19. As well as data, a considerable amount of descriptive metadata is also disseminated. The aim of this is to help users understand and interpret data from the IDBR. A high level overview of the register is presented on the National Statistics web site (7), with links to more detailed information targeted at specific groups of users. Another key document that has been disseminated via the Internet is the National Statistics Quality Review of the IDBR (8). This was produced in 2001, which stated that the quality of the register was good, but also made a number of recommendations to improve quality further. Progress on these recommendations is also reported on the Internet.

20. Key public sector register users are represented on two committees, the IDBR User Committee, and the higher level IDBR Management Committee. Papers are circulated to committee members to help to keep users informed about register developments, and quality

issues. A monthly report on register quality is prepared and distributed to these committees and other public sector register users.

21. Detailed information on register practices and procedures are well documented, and have recently been transferred to the new ONS corporate "Standards and Guidance Database". This is available to all register users within ONS, and copies are taken periodically for key customers in other government departments.

#### Components of quality

22. The ONS is recognised as a supplier of world-class statistics. It has a well-developed quality framework. In the past two to three years, the ONS has developed a formal approach to presentation of quality. This comprises a programme of National Statistics quality reviews. The review of the business register was among the first in this programme. A quality protocol has been produced, which is linked to the National Statistics Code of Practice.

23. The components of quality are:

- Relevance;
- Accuracy;
- Timeliness and punctuality;
- Accessibility and clarity;
- Comparability;
- Coherence;
- Completeness.

Each is considered when producing and disseminating data from the business register.

24. Relevance is demonstrated through the increased demand for outputs. The Business Registers Unit has an active programme of consultation with customers. This includes an annual customer satisfaction survey. The survey results are used to ensure the continuing relevance of the outputs.

25. The accuracy of the business register is limited to some extent by its administrative data inputs. The Business Registers Unit conducted a major quality survey in 1999, which provided key measures of accuracy of the size of the register, the industrial classification and the employment estimates on the IDBR. The annual register maintenance survey now provides a source for updating those measures. Work is in hand to produce these in Summer 2003 and annually thereafter.

26. The IDBR is updated daily from its primary administrative source (VAT). Other sources provide a continual stream of updates to the system. The IDBR is quality-assured at the time of monthly co-ordinated selections. Extracts taken at that time provide the basis of a monthly report to users that, although not published, is circulated widely within government departments. This rapid source of information is required in support of the surveys conducted from the register. Other data are provided from the live IDBR at the time of request or from fixed extracts that are taken once a year in April. The systems permit immediate response

through existing extracts or within 24 hours, where specific extracts are required. Responsiveness is, however, limited by staff resources and, in some cases by the need to get approval for release.

27. Development of web-based outputs, commencing in the mid-1990s through the ONS Statbase product made electronic access possible. The 2000 edition of the annual register publication was made through the web (in addition to paper). Since then, we have extended the range of data and metadata on the web providing free access to data for which charges were previously made. We find that primary users of IDBR outputs rarely require paper, the main exception being public libraries. The majority of users require electronic outputs in a variety of formats (e.g. MS Excel).

28. By comparability, we mean consistency over time and between analyses for different customers. We apply standard definitions across the extracts and tabulations. Any changes are agreed through a user committee (for ONS customers) and an inter-departmental management committee (for the wider government community). Where a change is required, we measure the impact and provide, where possible, both old and new formats.

29. To ensure coherence, we check outputs against a range of other sources. For example, we reconcile our ONS register-based estimates with those produced by the DTI Small Business Service from our register data.

30. Any business register is only as complete as its sources. The IDBR is limited by VAT registration thresholds (currently £56,000 a year) and by exclusion of employers that have all employees below the income tax threshold. The lack of a single business registration system results in a further limitation, as matching of small VAT traders and PAYE employers is imperfect. The register comprises 2 million enterprises, out of an estimated total of 3.75 million but represents 99% of UK economic activity. The DTI Small Business Service publishes estimates of the total population of enterprises with input from the ONS. A limitation of the administrative registration process is a lack of registration of local units. We have developed the annual register inquiry as a tool for maintaining local units across the whole economy (other than for agriculture, which is still covered on the business register only at the enterprise level), and as a consequence we are publishing more complete information on local units.

### Legal Issues

31. The UK does not have a statistical or registration law. For the conduct of its business surveys, it has the Statistics of Trade Act dating from 1947 for Great Britain and an equivalent Parliamentary Order for Northern Ireland. Together these place an obligation on businesses to provide data to government and an obligation on government to protect the confidentiality of the data collected.

32. The two main administrative sources that provide the input for the business register are also protected by legislation that limits their use to statistical purposes within UK government departments.

33. The UK has recently introduced a Code of Practice governing the use of data held by the statistics departments. This code makes public the operational rules by which we protect data.

34. In summary:

- Disclosive data can only be released to authorised outside bodies and contractors working for government departments.
- The ONS has set up a microdata release panel to make decisions on whether a release can be made.
- Release under the Statistics of Trade Act 1947 must be supported by a Ministerial Direction.
- Where release is permitted, a form must be signed by the recipient, limiting use to names persons.
- The data will be kept secure.
- The data will not be disclosed to any third party without the permission of the ONS.
- Legal sanctions against unlawful disclosure will be imposed.

35. Data can be sent by any secure media, usually by CD ROM, floppy diskette or paper. The security of email is a major concern. Within UK government departments, a secure email system has been set up, known as the Government Secure Intranet (or GSI). Where a department has such a system in place, individual and disclosive data can be sent by email. Organisations that are part of this system are identified by the inclusion of "gsi" in their email addresses.

36. Once data have been passed from the ONS to customers, they become the responsibility of the recipient. If confidential data are being passed to a third party under contract, then the ONS has to approve the relevant provisions of the contract before releasing the data.

37. Categories of users:

- ONS;
- Other government departments - business register data for sampling and other statistical purposes;
- Other government departments - for integration with ONS survey data;
- Other government departments - for other (administrative) purposes;
- Local authorities - for planning purposes;
- Eurostat;
- Other, business and research, customers.

38. The Code of Practice provides clear, public guidance for these customers. The ONS has published 13 protocols to support the Code of Practice. Those on confidentiality and release practice are most relevant (9).

39. To ensure that data are non-disclosive, counts are always rounded to the nearest multiple of 5, and employment and turnover are suppressed if the count is less than twenty, with additional suppression to prevent secondary disclosure if necessary.

#### Operational issues relating to release

40. Charges are in line with the ONS charging policy, and are currently £60 per hour (plus VAT where applicable). Additional charges can be made for data that will be published commercially or for resale.

41. The Business Registers Unit aims to despatch standard analyses within two weeks of confirmation of the requirement. The time-scale for special requests would be subject to discussion.

#### The register as a co-ordination tool

42. Data are collected from businesses through a range of surveys, around one hundred in the ONS alone. The register provides the focus for combining data from these sources. Where data are collected from people about their work patterns, through the labour force survey or the population census, it is then possible to relate employee to business.

43. Creation of a single business number has been under consideration within the UK for some time. Within the UK, the "joined-up government agenda" (guichet unique in French) requires closer working between departments, sharing of data and application of standards. Linked to this, there is a tight timetable for improving electronic communication between government and the business community. This is leading to better access to a wider range of data.

#### Drivers for future developments

44. The general increasing demand for information for decision making focussing on better targeting of service provision for the community is resulting in more demands on the business register outputs, as these requirements often cannot be met from sample sources. There is an increasing expectation of immediate delivery of information. The Internet or, within government the secure Intranet, is now the standard that is expected for access. Customers expect greater flexibility and to have interactive tools to produce their own views of the underlying data.

45. There is a wealth of administrative data that is currently difficult to access and integrate. For statistical purposes, the main driver is currently the government's Neighbourhood Statistics programme. The overall message is one of informed decision-making through joined-up data services. The increasing importance of the global economy is requiring common standards and better access to data from other countries.

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## **Virtual Micro Data Laboratory Data Brief 5: Spring 2008**

# **Some issues with enterprise-level industry classification: Insights from the Business Structure Database**

**Tomas Hellebrandt and Rhys Davies**

There has been an ongoing debate as to whether the size of the manufacturing sector in the UK is being understated in official statistics. This paper discusses how the methodology employed to allocate an enterprise to an area of economic activity can potentially disguise the extent to which enterprises are engaged in secondary activities. The methods used to classify single site and multi-site enterprises are discussed. We then consider the reasons why the classification of enterprises may change over time. Such changes may occur due to the use of agency workers, off-shoring, technological changes, demographic events or other factors that could affect the balance of employment between local units or the classification of individual local units.

Finally, we use information from the Business Structure Database in an attempt to quantify the number of people employed in secondary areas of activity. Specifically, we identify the proportion of people who work in complex organisations characterised by local units with different industrial classifications. We identify the proportion of people working in local units whose economic activity differs to that allocated to the enterprise. Utilising this information, we observe the degree to which employment in specific areas of economic activity can be over or under-estimated. The characteristics of enterprises which change their industrial classification are compared to those that don't and an attempt is made to test some of the hypotheses concerning the reasons for change.

### ***The Classification of Single Site Enterprises***

The Standard Industrial Classification (SIC) was first introduced into the United Kingdom in 1948 for use in classifying business establishments and other statistical units by the type of economic activity in which they are engaged. The classification provides a common framework for the consistent collection, tabulation, presentation and analysis of data on economic activity. It aligns with the European nomenclature, NACE, although the UK version is more detailed.

In general, ONS classifies enterprises according to their dominant activity at the local unit level. The level of employment at the local unit is used as a proxy measure for the volume of activity being undertaken at that site. For approximately 95% of

manufacturing enterprises that consist of a single local unit which both produces and sells the business' output, the classification of such an enterprise is straightforward. If over half of an enterprise's workers are manufacturing then the enterprise's classification will be manufacturing; if over 50 per cent of the firm's employees were involved in retailing to the public then classification would be distribution and services (retail). However, where the local unit is not homogenous, any secondary activity at the local unit is hidden. For example, a retailer that has an on-site bakery would have its activity as retailing and the production of bread would not be identified.

Eurostat guidelines relating to the development and harmonisation of business registers for statistical purposes<sup>1</sup> define a statistical unit that increases the degree of granularity with which information on the activities of businesses is recorded. Referred to as the 'kind of activity unit' (KAU), the KAU groups all the parts of an enterprise contributing to the performance of an activity at class level (four digits) of NACE Rev 1 and corresponds to one or more operational subdivisions of the enterprise. This unit of observation is not a requirement for national business registers. Given the difficulties associated with enterprises being able to identify KAU and then to provide accurate information for these units such on topics such as the value of production, intermediate consumption, employment costs and investment, KAU is operationalised within the IDBR only for the more complex enterprises.

Even within the 'straightforward' case of a single site enterprise, the allocation of the enterprise to a single area of economic activity could result in secondary areas of the organisation's business (as represented by employment in non-dominant activity) being disguised, where the enterprise does not recognise this as a separate local unit. As with other types of data collected from enterprises, the accuracy with which data on business activity can be recorded will reflect the level of detail with which businesses can realistically be expected to provide accurate information without increasing costs of compliance.

### ***The Classification of Multi-Site Enterprises***

Around 5 per cent of larger firms have complex structures, where activities are spread out across a number of local units (LU) which may be in different geographical locations. Importantly these enterprises provide a large amount of manufacturing activity. In such enterprises, the dominant SIC is allocated on a digit-by-digit, top-down basis. Table 1 presents the structure of a hypothetical company comprising of four local units. In terms of classifying this enterprise to a single area of economic activity, it can be seen that at the 2 digit level of SIC, the largest number of employees are working within local units that are classified to SIC 52. Despite Local Unit A being the single largest local unit within this enterprise structure, SIC 52 is larger (in terms of local unit employment) than SIC 33. Within SIC 52, 5211 is larger than 5221 and within this 52111 is larger than 52112. Thus, the dominant SIC is 52110.

**Table 1: Enterprise Classification: Example 1**

Local Unit	SIC Code	Employment
A	33500	45
B	52111	20
C	52112	10
D	52210	25

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<sup>1</sup> the EU Regulation on Statistical Units (EEC 696/93)



The result is that with the majority of employment in retailing a dominant SIC of retailing is selected and within retailing the same dominance rule applies. Having identified a dominant SIC, up to three secondary SIC codes are identified using the same rule.

The use only of the single dominant SIC code at the level of the enterprise within mixed enterprises, i.e. ones that have a mixture of local units in different sectors will mean that economic activity in non-dominant areas of employment will be disguised. Within the above example, the enterprise is classed as distribution and services even though 45% of its employment is in manufacturing. Table 2 provides a further example of how the actual level of activity within manufacturing could be understated. The dominant SIC code in this case is 52111. The enterprise is allocated to services despite the fact that employment within manufacturing based local units is higher. In this case, manufacturing activities are spread out over a more diverse range of manufacturing industries while its service activities are all within one broad industry.

**Table 2: Enterprise Classification: Example 2**

Local Unit	SIC Code	Employment
A	33500	40
B	29410	15
C	52111	25
D	52210	20

In this case, the dominant activity is retailing with 52111 chosen and the three other three are designated as secondary.

This is the rule for the enterprise. However, where an enterprise is identified as being large and complex, the enterprise is split into homogeneous parts, called reporting units. These equate, as far as possible, to the concept of the kind of activity unit. Each of these is then treated as an analytical unit for survey purposes. In the example above, four homogeneous reporting units would be created, if the activity of each is large.

Where a set of reporting units is created to provide a split of the enterprise, it is still possible that one or more reporting units are not homogenous in respect of activity. In the first instance, the dominance rule is applied but where there is more information on the activity of the reporting unit itself the classification may be modified both at the reporting unit and for its constituent local units to better reflect its primary activity.

### **Why might enterprise-level industrial classification change?**

The methodology used to allocate SIC codes to enterprises could result in actual levels of manufacturing in the UK being understated in any analysis of enterprises. While ONS surveys use the reporting unit concept, this is not reflected in survey outputs. The profile of this issue is raised when looking at information published by businesses traditionally regarded as manufacturing. For example, the Rolls-Royce website states that 'Rolls-Royce is a technology leader, employing 38 thousand people in offices, manufacturing and service facilities in 50 countries...annual sales total £7.4 billion, **of which 53 per cent are services revenues**. Under the Statistics of Trade Act 1947, the classification of enterprises by ONS is confidential. However, such statements combined with a lack of awareness about how complex enterprises are actually coded to SIC gives rise to the concern that a classification based on a description provided by the company would not necessarily be the same as the classification produced by ONS based upon a classification of local units.

Concern over the under-representation of manufacturing within the UK has also been raised in the context of the growth of atypical forms of employment, in particular the utilisation of agency workers who may not be directly employed by the manufacturing enterprise. A recent article in the Guardian presented several examples of the utilisation of agency workers in manufacturing<sup>2</sup>. It reports that of the 4,700 workers at the BMW Cowley plant in Oxford, 1,200 are agency workers and that of the 23,500 workers employed by Corus steel, between 5 and 10 thousand agency workers are employed across the company.

The utilisation of agency workers may affect the balance of employment within local units of manufacturing enterprises and, in turn, the overall classification of enterprise. The reduction in manufacturing employment on the firm's books may in some cases lead to a change in classification. Moreover, the transfer of employment from manufacturing into services will directly alter the balance between the two sectors, even though the nature of the employment being transferred has not changed. Similarly, change could be influenced by outsourcing of certain activities abroad. A manufacturing firm might outsource some or all of its production to China, for example, while remaining in the retail business in the UK. Once again, manufacturing employment falls relative to service employment which may result in change in classification.

These developments have taken place against a background of technological change that has led to significant changes in the nature of particular jobs within industries and a restructuring of the way in which work is organised. The wider application of information technology has been of particular importance. The application of IT has led to the displacement of many clerical and secretarial jobs previously concerned with information processing using paper technology. The application of IT in manufacturing has also led to the displacement of many skilled workers whose jobs have been taken over by computer controlled machinery. On the other hand, information technology has opened up many new areas in which information services can be provided that were previously not feasible. This has tended to create jobs of a professional, associate professional and managerial nature. Investment in labour saving capital equipment could alter the balance of employment between local units.

Finally, changes in classification at the level of the enterprise could be due to changes to SIC classification of one or more local units. This will alter the allocation of employment to different SIC categories within the enterprise, and may lead to a change in the dominant SIC. Marginal changes in employment in mixed enterprises with a relatively even share of employment across local units could also lead to a change in the derived enterprise level classification. Lastly, changes in industry classification at the enterprise level could be due to restructuring or other demographic events at the local unit level. An enterprise may open a new local unit or close a local unit which shifts the balance of employment and leads to a change in the dominant SIC. Or one enterprise might take over another with the resultant balance of local units leading to a change in classification.

### **Identifying those Employed in Secondary Areas of Business Activity**

The above discussions have highlighted how levels of activity within particular business areas may be disguised if those areas represent secondary activities. Taking a longitudinal perspective, changes that occur either within or between local units could also affect the overall assignment of an enterprise. Such changes may occur due to the use of agency workers, off-shoring, technological changes,

---

<sup>2</sup> *Underpaid, easy to sack: UK's second class workforce* Felicity Lawrence, 24<sup>th</sup> September 2007.

demographic events or other factors that could affect the balance of employment between local units or the classification of individual local units.

To investigate the potential importance of these issues, we utilise data from the Business Structure Database (BSD) is used. The BSD is a longitudinal business database constructed from annual snapshots of the Inter-Departmental Business Register (IDBR). The IDBR is a live register which acts as a sampling frame for UK business statistics. At the time of writing, BSD data was available for the period 1997-2006. For each enterprise, ONS maintains a list of “local units” through its Business Register Survey. The BSD is divided into enterprise files and local unit files. The local unit files can be linked to the enterprise files by means of corresponding enterprise reference number that is included for each local unit.

Enterprises from the 2006 BSD have been classified into three broad sectors: manufacturing (SIC 15 – 37), services (SIC 50 – 99) and other non-service (SIC 01 – 14 and 40 – 45). Each of the three sectors has been sub-divided into three categories: (i) enterprises with a single local unit, (ii) enterprises with multiple local units all of which are within the same sector, and (iii) enterprises with multiple local units which belong to different sectors. Table 3 summarises the data for the 2006, showing the number of enterprises and total employment in the three sectors and how these are distributed among the three sub-categories. There is clearly more employment in the service-mixed category (4.2 million) than in the manufacturing-mixed category (1.1 million), but this in itself reveals little about the size of manufacturing employment in the service sector and vice versa. Exploring these issues in more detail requires the use of the local unit BSD which makes it possible to calculate, for each enterprise, the total local unit employment in each of the three sectors.

**Table 3: Single and Multiple Site Enterprises within the BSD**

<b>2006</b>	<b>Enterprise</b>	<b>Employment</b>
<b>Manufacturing</b>	159,223	3,324,577
Single site	95.3%	47.6%
Multiple - exclusive	2.8%	18.5%
Multiple - mixed	1.9%	33.9%
<b>Other non-service</b>	393,864	1,915,912
Single site	99.2%	70.3%
Multiple - exclusive	0.5%	8.6%
Multiple - mixed	0.3%	21.2%
<b>Service</b>	1,694,077	22,773,434
Single site	97.0%	36.7%
Multiple - exclusive	2.8%	44.9%
Multiple - mixed	0.2%	18.5%

Table 4 shows for multiple site enterprises with mixed local units, the number of people who are employed within enterprises that have been allocated the same industry classification as the local unit in which they work. In total, 5.7 million people are employed in multiple site enterprises with mixed local units. Of these, 1.1 million are working in enterprises classified as manufacturing. However, examination of the

industry coding at the level of the local unit, indicates that 23 thousand are actually employed in Other Non-Services and 167 thousand are employed in local units within services. Manufacturing employment is therefore overstated by 190 thousand. However, offsetting this it is observed that many people who are employed in enterprises classified as either Other Non-Services or Services are actually employed in local units classified as manufacturing. In this respect, enterprise level classification understates the number of people employed in manufacturing by 99 thousand. Taking Table 4 suggests that manufacturing employment is overstated by about 91000, while other non-service employment is understated by about 43000, and service employment is understated by about 48000.

**Table 4: Comparing Enterprise and Local Unit Classification**

Enterprise Classification	Local Unit Classification			
	Manufacturing	Other non-service	Service	Total
<b>Manufacturing</b>	935,438	23,312	167,109	1,125,859
<b>Other non-service</b>	14,226	324,625	67,086	405,937
<b>Service</b>	84,817	101,282	4,019,873	4,205,972
<b>Total</b>	1,034,481	449,219	4,254,068	5,737,768

Table 5 shows the level of over/under representation of employment across sectors as identified by the method outlined above. It can be seen that for most of the period, manufacturing has been overstated based upon classification based upon the level of enterprise. While there appears to be a discontinuity in the series during 2003, it is generally the case that manufacturing employment is overstated by between 80 and 100 thousand. However, in the context of the 3.3 million people who are estimated to be employed in manufacturing based upon an enterprise level classification, this figure is insignificant. More generally, it is noted that in 2006, only around 1.4% of mixed enterprises are assigned to a sector which does not correspond to maximum local unit employment for that enterprise.

**Table 5: Under/Over Representation of Employment by Sector**

	1998	1999	2000	2001	2002	2003	2004	2005	2006
<b>M</b>	89,159	94,612	96,222	85,169	82,975	44,272	62,743	78,061	91,378
<b>O</b>	-113,852	-99,693	-111,618	-87,428	-93,256	-65,249	-77,871	-56,655	-43,282
<b>S</b>	24,693	5,081	15,396	2,259	10,281	20,977	15,128	-21,406	-48,096

### How Many Enterprises Change their Industrial Classification?

Approximately 18% of all enterprises, accounting for about 28% of employment, change their SIC classification at least once during the period 1998-2006, a period of 9 years. Of this, 2.3% (accounting for around 3.7% of total employment) are changes that result in a re-classification from one of the three broad sectors outlined above to another (e.g. manufacturing to service). The analysis in this and the next section will focus on changes in sector classification. From the perspective of understanding broad changes in the industrial composition of employment, such changes are interesting because they lead to the shift of the whole workforce/output of an enterprise from one sector to another.

Table 4 can be used to compare enterprises that remain within one sector for the entire time they appear in the BSD with those that change sectors. The first four columns show, respectively, the proportion of all enterprises and the proportion of total employment that can be found in a particular category. As noted above, a large majority of enterprises do not change their aggregate classification. Of those that do change, relative to the other categories of enterprises that change sectors, the change from manufacturing to services accounts for a largest proportion of people who are employed at enterprises that exhibit a change in classification. Enterprises in this category tend to be large in terms of their employment (column 5), but on average their employment shrinks significantly over the period they appear in the BSD (column 6), despite the fact that the local unit count remains stable on average (column 7).

**Table 4: Characteristics of Enterprises According to Classification Changes**

	Ent	Of those who change	Emp	Of those who change	Emp start	Emp change	LU change
<b>Manufacturing</b>							
Constantly in manufacturing	6.81%		12.77%		16.7	-0.5	0.01
Manufacturing to non-service	0.10%	4.3%	0.13%	3.7%	10	2.9	0.05
Manufacturing to service	0.49%	21.1%	1.02%	29.4%	22.5	-7	0.07
Manufact. to non-service to manufact.	0.01%	0.4%	0.03%	0.9%	21.4	15.5	0.48
Manufact. to service to manufact.	0.03%	1.3%	0.26%	7.5%	73	-6.6	0.4
Manufacturing to non-service to service	0.00%	0.0%	0.01%	0.3%	11.6	2.6	-0.04
<b>Other non-service</b>							
Constantly in non-service	15.49%		6.85%		3.6	0.6	0
Non-service to manufacturing	0.13%	5.6%	0.13%	3.7%	5.7	5.5	0.06
Non-service to service	0.47%	20.3%	0.44%	12.7%	8.1	0.9	0.05
Non-service to manufact. to non-service	0.01%	0.4%	0.02%	0.6%	19.9	4.2	0
Non-service to service to non-manufact.	0.03%	1.3%	0.08%	2.3%	21.7	2.8	-0.03
<b>Service</b>							
Constantly in service	75.39%		76.90%		8.2	1.7	0.03
Service to manufacturing	0.52%	22.4%	0.71%	20.5%	8.3	7.8	0.08
Service to non-service	0.42%	18.1%	0.36%	10.4%	5.6	3.7	0.06
Service to manufacturing to service	0.05%	2.2%	0.17%	4.9%	20.7	14.2	0.14
Service to non-service to service	0.05%	2.2%	0.10%	2.9%	15.5	11.3	0.07
Service to non-service to manufacturing	0.01%	0.4%	0.01%	0.3%	16	13.8	0.3

## Concluding Comments

The use only of the single dominant SIC code at the level of the enterprise within mixed enterprises will mean that economic activity in non-dominant areas of employment will be disguised. A number of structural changes within the economy have raised concerns that manufacturing employment and output may be understated. Analysis of the BSD has revealed that this is not the case. However, it is revealed that among those enterprises that have changed their industrial classification, these are more likely to be larger manufacturing enterprises that have experienced a reduction in their employment levels.

The following points on RU references are worth noting:

- refs beginning with 6049xxxxx are the RU numbers for enterprise groups
- refs beginning with 499xxxxx are the (group) RU numbers for individual units/ents
- refs beginning with 99xxxxx refer to enterprises, but these codes are no longer valid within the IDBR sampling frame (they should still link to other data sets such as ARD/ARD2 though).

## Note on foreign ownership codes in the BSD 2008

The variables `imm_foc` and `ult_foc` indicate whether an enterprise is part of an overseas-owned company.

In previous BSD years, this code was numerical. The recent 2008 file contains a two-character code instead.

For researchers who require the numerical code, and for consistency for previous years, the excel conversion sheet can be found in:

"X:\references\country\_codes\Coding\_Index(new codes).xls".

MAUS team, October 2008

\*\*\*7th May 2008

\*\*BSD Local Unit

It appears that in the variable "postcode", the two parts of the postcode are the wrong way around, e.g. 1UL SL7 instead of SL7 1UL.

I have corrected this by creating a new variable: postcode\_new, which is in the correct format.



The Enterprise level BSD files were labelled on 26/01/11, this is the only change that has been made.

AT 26/01/11

8th December 2008

## Addition of 'employee' and 'GOR' variables to BSD files

Following requests from users, we have now included the employee variable on BSD and LU\_BSD files. 'Employees' gives the number of employees for a company registered for PAYE. 'Employment' gives the total number of employees, and may include individuals, such as company directors etc, not registered for PAYE but who are paid by company dividends etc, as well as PAYE registered employees.

GOR is the Government Office Region code.

1997 - 1999

A North East

B North West

C Merseyside

D Yorkshire and Humber

E East Midlands

F West Midlands

G East of England

H London

J South East

K South West

W Wales

X Scotland

Y Northern Ireland

Z Channel Islands & Isle of Man

From 2000 onwards, C, Merseyside, was merged with B, North West.

Hi Karen,

Just to add to Richard's note.

The foreign country codes are sourced from Dunn & Bradstreet. We basically buy in their data and load this onto the IDBR then QA. D&B hold about 146 million companies on a global scale. They collect the ownership information directly from the company through various methods such as surveys and profiling and other sources like companies house, Tax Authorities, Courts and the National Address File. ONS buys in this data and updates the IDBR with group structures and the ownership codes.

D&B will provide us with ownership codes where it has the information.  
It will also supply information as unknown if it hasn't had a response from the business.  
We never allocate an ownership code ourselves. If an enterprise is not in D&B's data, then we do not allocate it a foreign code, we leave the ownership code blank. We assume that it has to be UK as it has activity here and no link to any other country. These enterprises we would assume UK, but don't allocate a code.

Thanks

\*\*\*\*\*

Richard Welpton  
05/10/2009 14:04

Subject: Re: query on bsd/idbr

Hi Karen

From my knowledge, ownership information is derived from enterprise group references within the IDBR or from Dunn & Bradstreet. I have cc'd in \*\*\*\*\* from the IDBR team - I'm sure will know the answer to this.

Best wishes

Richard

Virtual Microdata Laboratory  
Office for National Statistics  
01633 45 5359  
<http://www.ons.gov.uk/about/who-we-are/our-services/vml/index.html>

30/09/2009 12:05

To: Richard Welpton/ONS@ONS

cc:

Subject: query on bsd/idbr

Hi Richard

Just a quick query on the ownership variables on the BSD; I was working on the LU version of the data and noticed that for a large proportion of the plants in the years I was looking at (i.e. 2002 and 2005) their imm\_foc and ult\_foc are coded as unknown. I wanted to ask where the ownership data is originally derived from, and if you knew why so many of them were unknown?

Any info you can provide will be very helpful.

Thanks

Karen

If the local unit is a real local unit  
then it will have the postcode of the actual  
local unit. Where there is no local unit  
present, we use the enterprise postcode.  
We call these dummy LUs and they all start  
with ref number 99...

Hi Richard,

Local units beginning with X, these are local units that are really old. They were transferred from our old system before IDBR existed. The X indicated that they were from the old system and from then on we just used numbers. There should be very few references beginning with X and most should be dead on any extracts but they are still on the IDBR.

Thanks  
Verity

**Richard Welpton**

11/12/2009 09:59

To:  
cc:  
Subject:

Verity Sweeney/BDD/BSG/NE  
things

Hi Verity

Can I ask you about a couple of things please:

2 Do you know what it means when a local unit reference number begins with an x.

Many thanks

Richard

Virtual Microdata Laboratory  
Office for National Statistics  
01633 45 5359  
<http://www.ons.gov.uk/about/who-we-are/our-services/vml/index.html>

Hi Richard,

I wasn't in yesterday so did answer you other e-mail too. The deprivation marker on the extracts is the index of deprivation. It covers England only. The regional statisticians requested it for analyses purposes. It will only be on the extracts from this year forward until it is no longer needed.

Yes you are correct. The enterprise GOR is based on the information that the business has given us as to where it's HQ is. I think that where you were thinking that the GOR is driven by where the majority of the local unit employment is correct, but this is only used at reporting unit level. Basically an enterprise can have multiple RUs for us to collect survey information. The RU may have one address which is where the forms are to be delivered, but the RU GOR will be derived from the local unit employment attached.

Thanks  
Verity

**Richard Welpton**

07/01/2010 11:00

To: Andrew Allen/DCPD/BSG/NEWPORT/ONS@ONS  
cc:  
Subject: Enterprise location

Dear Both

Happy new year!

Am I right in thinking that the location of an enterprise is determined by where its headquarters is? e.g. if the HQ is in London, then the gor for the enterprise will be London?

I'm sure we talked about this last year - I seem to remember a discussion about this, and the location might have been based on where the majority of employment in local units is. But Tesco is based in Hertfordshire but thats not where the majority of employment is.

Thanks for your help, as always,

Best wishes

Richard

Virtual Microdata Laboratory  
Office for National Statistics  
01633 45 5359  
<http://www.ons.gov.uk/about/who-we-are/our-services/vml/index.html>

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# Business register

## Recommendations manual



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**BUSINESS REGISTER  
RECOMMENDATIONS MANUAL**

**Chapter 1  
Scope of the Recommendations**

**Status: First Revision - March 2003**

## **SCOPE OF THE RECOMMENDATIONS**

### **Contents**

- 1A - The General Framework
- 1B - The Regulation
- 1C - Objectives of the Manual
- 1D - Structure of the Manual
- 1E - Scope of the Recommendations
- 1F - Relation to the BR Regulation

### **1A - The General Framework**

1.1 The Member States of the European Union have undertaken a programme to harmonise and develop their national business registers for statistical purposes. This programme is co-ordinated by Eurostat, with priorities decided and progress reported at annual Business Registers Working Group meetings. The main tool for assessing progress is the annual business register questionnaire, administered by Eurostat. Regular contact is also maintained between Member States and Eurostat via less formal means such as e-mail and the BR Net Internet site:

[http://forum.europa.eu.int/Members/irc/dsis/brnet/info/data/en/brnetwelcome\\_en.html](http://forum.europa.eu.int/Members/irc/dsis/brnet/info/data/en/brnetwelcome_en.html)  
Note - a username and password are needed to access this site.

1.2 This programme is generally open to other European countries, particularly EFTA and Candidate Countries, most of whom take part in meetings and discussions. It is also closely co-ordinated with the United Nations Economic Commission for Europe (UN/ECE) and joint meetings are held on a regular basis. The main tools supporting this work programme are:

- The Regulation - Council Regulation (EEC) No 2186/93 of 22 July 1993 on Community co-ordination in drawing up business registers for statistical purposes (OJ No L 196, 5.8.93), which provides the legal basis;
- The Recommendations Manual. This has no legal basis, but provides guidelines on interpreting the Regulation, as well as information to guide the further development of business registers.

### **1B - The Regulation**

1.3 The Regulation was adopted by the Council of Ministers of the European Union on 22 July 1993, and came into force on 25<sup>th</sup> August 1993. It is part of a series of Regulations that have the aim to harmonise the infrastructure for European business statistics, including:

- Council Regulation (EEC) No 3037/90 of 9 October 1990 on the statistical classification of economic activities in the European Community – which gave the legal basis to the NACE classification. This Regulation has subsequently been



amended by Commission Regulation (EEC) No 761/93 of 24 March 1993 and Commission Regulation (EC) No 29/2002 of 19 December 2001. The latter introduced the latest version of NACE, known as NACE Rev. 1.1.

- Council Regulation (EEC) No 696/93 of 15 March 1993 on the statistical units for the observation and analysis of the production system in the Community.

1.4 The business registers Regulation was a compromise between what was desirable and what could reasonably be achieved during the 1990's. The initial position as regards registers was very different from one country to another. Some countries had to develop their registers, and in some cases even create one, whereas others needed only to adapt their existing register to meet the requirements of the Regulation.

## **1C - Objectives of the Manual**

### **a) To explain the Regulation**

1.5 The Regulation sets out the agreed rules for the harmonisation of national registers, but the logic behind these rules is not always clear, partly because the Regulation is the outcome of complex negotiations. The Manual aims to explain the reasoning behind the provisions in the Regulation. It aims to provide the extra information necessary to allow the correct and consistent interpretation of the Regulation in all countries.

### **b) To go beyond the Regulation and guide future development**

1.6 The Manual goes beyond the provisions of the Regulation for the following reasons:

- One of the main constraints in drawing up the Regulation was what was feasible in a relatively short time scale for all Member States, thus it reflects a compromise rather than the ideal situation. As the Manual has no legal force, it can be used as a tool to push further towards ideal solutions by identifying and recommending best practices.
- Implementing the provisions of the Regulation guarantees a certain level of harmonisation between the registers in the various Member States, but this is not sufficient to make these registers fully operational. In order to do so, the Member States have to add other elements to take account of national peculiarities, such as the administrative sources used and the needs of various register users. The freedom to decide how to compile and maintain the register is consistent with the principle of subsidiarity, but makes it more important to have documented guidelines, and information on the experiences of other countries.

## **1D - Structure of the Manual**

1.7 The Manual is presented as a set of three parts, dealing with:

(i) The basics: Objectives, units, contents and access (Chapters 1-10)

(ii) Unit demography: changes and continuity (Chapters 11-16)

(iii) Contents: updating and developing (Chapters 17-)

1.8 The structure of the Manual is not permanently fixed, as new chapters can be added to reflect new developments, and existing chapters can be revised when necessary.

1.9 The latest version of the Manual is primarily designed for electronic dissemination, via the Internet. It has, however, been designed so that it can be printed on a chapter by chapter basis if required.

For this reason, each chapter must be capable of being read separately, whilst still forming part of a coherent set. It is therefore not always possible to achieve a full understanding of a certain topic without reading all of the various chapters concerned.

1.10 Each chapter is clearly marked with the date and current status, indicating whether it is a draft, or agreed text.

## **1E - Scope of the Recommendations**

1.11 All Member States of the European Union maintain business registers for statistical purposes. According to Article 1 of the registers Regulation "Member States shall set up for statistical purposes one or more harmonised registers with the definitions and scope specified in the following Articles". Throughout this manual, the term "business registers" means lists of enterprises and other units, as required by the registers Regulation or recorded on voluntary basis, whose activities contribute to the Gross Domestic Product of the Member State. These units can be defined as those that exercise control over the use of resources, including land, labour, capital, goods and services, in order to produce goods and services for their own consumption or consumption by other units.

1.12 The scope and nature of national business registers are determined by country specific factors. The primary factor concerns the purposes for which the register is used, e.g. as a tool for the conduct of surveys, or as a source for statistics in its own right. A second major factor is that legal requirements determine to a significant extent both the information available to build and maintain business registers, and the limits within which that information may be stored and used. Thirdly, the information which businesses need for their own purposes, or to fulfil administrative requirements, governs to a large extent the information a statistical institute can obtain for its register, since it is often difficult to persuade enterprises to supply information which they do not themselves need. Finally, business registers are very expensive to compile and maintain, and the resources devoted to them vary between Member States.

1.13 While the scope and nature of national business registers vary considerably, it is clear that they will not fully meet the needs for comparable statistics for the European Union as a whole. This is likely to become more of an issue given the growing needs for accurate and timely data for the purposes of administering the monetary union and the single market.

1.14 The recommendations in this manual for harmonising the principles and content of business registers in Member States do not just represent those factors that are common to existing registers of Member States. They do, however, reflect current practices which statisticians consider useful, improvements to registers that they consider possible, and future needs so far as they can be foreseen. The recommendations pay full regard to the need for consistency in the units and classifications used in harmonised registers and particularly to compatibility with NACE. They also take into account the need for a balance between what is desirable and what is practical, bearing in mind the costs which would be involved and the information which organisations can reasonably be expected to provide.

1.15 Full implementation of these recommendations will help to ensure that business registers are compiled and maintained on a consistent basis in all Member States; hence, the statistical surveys based on them will improve in comparability and in many cases in quality. It will also help to develop new uses for registers, for example as a direct source of statistics on business demography.

## **1F - Relation to the BR Regulation**

1.16 This chapter introduces the Manual of Recommendations, its framework, objectives and scope, and as such, it is not considered an interpretation of the Regulation.

**BUSINESS REGISTER  
RECOMMENDATIONS MANUAL**

**Chapter 2  
Harmonisation of Business Registers**

**Status: First Revision – March 2003**

# **HARMONISATION OF BUSINESS REGISTERS**

## **Contents**

- 2A - Why Harmonise?
- 2B - What Needs to be Harmonised?
- 2C - Harmonisation in Practice
- 2D - Relation to the BR Regulation

## **2A - Why Harmonise?**

2.1 In all Member States of the European Union (EU) the availability of business registers is of fundamental importance to the compilation of the statistics needed to provide indicators of both short-term and structural economic developments. If the coverage, comprehensiveness and quality of these registers vary between countries, the data produced from them, either directly or via statistical surveys, are difficult to integrate to produce aggregates for the EU as a whole. The goal of consistent and comparable statistics cannot be achieved without some form of standardisation of registers.

2.2 The single market is giving rise to new requirements for information on the structure of enterprises. For example, there are needs for statistics on take-overs, mergers and restructuring, and on the concentration of the factors of production. Additionally, for many years there has been a rapid growth in the internationalisation of enterprises, with the formation of multinational companies spanning the boundaries of Member States. Users in general, and the European Commission in particular, require information on this phenomenon. An EU-wide approach to the design and maintenance of statistical registers will help to meet these needs for information.

2.3 In many countries there is increasing pressure to reduce the burden on enterprises of supplying information for statistical surveys. In contrast, data users are constantly seeking improvements in the statistics currently provided and presenting new requirements. Rationalisation of the systems for collecting information can, to some extent, reconcile these conflicting needs. Good registers allow surveys to be distributed more effectively and economically between various enterprises and, by the use of the same information for different purposes, the total amount collected can be reduced. Therefore, harmonised registers should help to contain the reporting burden on enterprises; in some cases it might even be reduced.

## **2B - What Needs to be Harmonised?**

### **The definition of units**

2.4 To enable Member States and international institutions to compare and integrate their statistics, they must have at their disposal a common set of statistical units. Council Regulation (EEC) No 696/93 of 15 March 1993 on the statistical units for the

observation and analysis of the production system in the Community defined a set of eight units. Unfortunately these definitions have been open to different interpretations, and have therefore been implemented in different ways in different countries. Further work is required to achieve the goal of harmonised statistical units.

2.5 It is not practical for business registers to hold all eight units. The registers Regulation (Council Regulation (EEC) No 2186/93 of 22 July 1993 on Community co-ordination in drawing up business registers for statistical purposes) selected two of these, the enterprise and the local unit, as these were the main units envisaged for the purposes of collecting business statistics at that time. In addition, registers are also required to hold information on the legal units underlying the enterprises.

2.6 Since the registers Regulation has been in force, the importance of enterprise groups has rapidly increased. They are already included in the statistical business registers of most Member States and the inclusion in the rest of the countries is foreseen. Other statistical units, mainly kind-of-activity units and local kind-of-activity units, are a matter of subsidiarity. They are included in some countries but can also be created in an analytical way.

### **Coverage**

2.7 In theory, business registers should record all enterprises and local units that are active in the national economy. This may not always be possible in practice, so for the purposes of international comparison it is desirable that the coverage of business registers should meet agreed standards, and the omission of any groups of units must involve an assessment of their economic importance. The registers Regulation defines the units, which must be included, and those, which may be excluded. This topic is treated in detail in Chapter 6.

### **Updating**

2.8 The entities represented by the units held in business registers are not static. Entities are created; they may change their form, and eventually disappear. Over a period of time, their characteristics may also change. Unless the rules and procedures for recording these demographic events are standardised, and the terms and frequency of updating statistical units are harmonised, it will still be difficult to make international comparisons. The treatment of demographic changes is considered in detail in Chapters 11 - 16.

### **Characteristics**

2.9 The characteristics recorded within business registers for the different units must, like the units themselves, be harmonised. They determine the comparability of the strata used in sampling, the harmonisation of relevant sub-populations and the standardisation of definitions for certain derived units. The characteristics required are discussed in Chapter 5.

### **Quality of business registers**

2.10 The quality of a business register corresponds to the extent to which it meets the needs of its users. This is in line with the ISO 9000:2000 definition of quality, and the approach taken within the European Statistical System regarding the assessment of the quality of statistics. This may conflict to some extent with the previously held view that the quality of a business register is determined by how closely its contents reflect reality. In certain cases demands for statistical consistency, e.g. between short-term and structural indicators, may require temporary distortions of reality, such as the postponement of certain updates until a specific point in the annual statistical cycle.

2.11 In practice, each country is free to determine the procedures and sources for compiling and updating its register, provided that it can guarantee the necessary level of quality for the purposes for which the register is used. It is therefore important to lay down minimum quality standards, which must be reviewed periodically to take account of changes in the use to which the registers are put. Quality standards and measures are discussed in more detail in Chapter 10.

## **2C - Harmonisation in Practice**

2.12 The harmonisation of national business registers is a long and gradual process. The registers Regulation provides the initial basis for this harmonisation by defining the legal and statistical units to be covered, and specifying the characteristics to be recorded.

2.13 Effective harmonisation also requires regular consultation and discussion. The main vehicles for this are the annual Business Registers Working Group meetings, other ad hoc working group or task force meetings, and the BRNet Internet site: [http://forum.europa.eu.int/Members/irc/dsis/brnet/info/data/en/brnetwelcome\\_en.html](http://forum.europa.eu.int/Members/irc/dsis/brnet/info/data/en/brnetwelcome_en.html)  
Note - a username and password are needed to access this site.

2.14 The progress of harmonisation work is monitored through an annual questionnaire administered by Eurostat.

## **2D - Relation to the BR Regulation**

2.15 This Chapter sets out the rationale for harmonisation and explains how this is to be achieved in the context of the Regulation. It is not therefore directly an interpretation of the Regulation.

# **BUSINESS REGISTER RECOMMENDATIONS MANUAL**

## **Chapter 3 Objectives and Uses of the Business Register for Statistical Purposes**

**Status: First Revision – March 2003**



## **OBJECTIVES AND USES OF THE BUSINESS REGISTER FOR STATISTICAL PURPOSES**

### **Contents**

3A - Objectives

3B - Uses of Statistical Business Registers

3C - Relation to the BR Regulation

### **3A - Objectives**

3.1 Current and future objectives and uses should be carefully analysed to determine how best to develop national business registers. Standard objectives for statistical business registers include:

- Coverage - The aim is to cover as much national economic activity as possible, though there is often an increasing ratio of costs to benefits involved in covering the smallest units, so some sort of cut-off is usually applied in practice. The proportion of Gross National Product covered by a register is often a more useful measure than the proportion of enterprises covered. Coverage of business registers is dealt with in more detail in Chapter 6.
- Quality - A high quality business register will help to improve the efficiency of the national statistical system, which should in turn help to reduce the response burden on businesses. Overall quality is not easy to measure, though various specific aspects of it can be used as indicators, e.g. coverage, accuracy of the data held, frequency of updates, and consistency of processes. Quality of business registers is dealt with in more detail in Chapter 10.
- Authority - The business register should be recognised as the authoritative source for data on business populations and demography. It should be the sampling frame for all business surveys within the national statistical system.

### **3B - Uses of Statistical Business Registers**

3.2 Studies have shown that statistical business registers are used in 5 main ways:

- For the detection and construction of statistical units;
- As a tool for the preparation and co-ordination of surveys, and for grossing up survey results;
- As a source of information for statistical analysis of the business population and its demography;
- As a tool for the mobilisation of administrative data;
- As a dissemination tool.

3.3 These uses, and their implications for the maintenance and development of business registers, are considered in detail below. Non-statistical, e.g. commercial or administrative uses are generally not discussed in this Manual. They may be

important in some countries, but forbidden in others. They may also give useful feedback for the business register; this is discussed in Chapter 9.

### ***Detection and construction of statistical units***

3.4 The units used for statistical observation or analysis, e.g. enterprise, Kind-of-Activity Unit (KAU), and the more abstract Unit of Homogeneous Production (UHP), may represent real economic structures, but do not always correspond exactly to known legal or administrative units (VAT and other tax, company registration, etc.).

3.5 Administrative sources provide information on the creation and existence of legal units in all countries. The addresses of premises in which these legal units employ workers are also often known to the administrative authorities responsible for implementing social legislation and to the social security authorities, but in some countries those sources are difficult to mobilise.

3.6 Note: The term "Local Legal Unit" can be used to describe the local unit of a legal unit, which is a non-statistical unit frequently encountered in administrative files by register administrators despite the fact that it does not occur in the Regulation on statistical units.

3.7 The business registers developed by European Union countries will therefore have to serve at the same time as registers of administrative units on the one hand and of statistical units, (enterprises, local units and enterprise groups) on the other. They are designed to function as a bridge between administrative and statistical units.

### ***Tool for the preparation and co-ordination of surveys***

3.8 The most obvious use of a business register is to supply sample and population data necessary for conducting surveys. A business register can:

- provide a directory from which mailing lists can be assembled for the despatch of questionnaires in statistical surveys;
- provide a population of businesses for which efficient sampling schemes can be designed and panels monitored;
- provide the basis for grossing-up results from sample surveys to produce business population estimates;
- help to prevent duplications and omissions in the collection of information on businesses;
- improve congruence between the results of different surveys;
- control survey overlap by effective co-ordination of samples, thus reducing both costs and response burden;
- help to improve coverage or reveal inaccuracies in statistical data collection;
- help to monitor and spread the response burden on businesses caused by statistical surveys.

3.9 To be of sufficient quality for this purpose, the register must be updated at least annually to record unit creations and deletions, as well as changes in address and stratification variables.

3.10 It will be noted that this use of the register means that co-ordinated sample selection tools will need to be developed downstream of the actual register management.

3.11 Another major problem in conducting a statistical sample survey relates to the treatment of businesses that do not reply to the survey. It is necessary to determine whether this non-response is due to cessation of activity of the unit or a straightforward refusal to reply. In the case of cessation of activity, it is also necessary to determine whether the activity ceased before, during or after the reference period for the survey. Non-response can therefore be treated in the manner appropriate to the particular case. This careful treatment of non-responses can only be implemented if the register permits prompt elimination of uncertainty about the reason for non-response.

3.12 Variations in the results of surveys, mainly in strata surveyed exhaustively or almost exhaustively, or for panel surveys where the same sample is retained for several years, can often be explained by structural changes within enterprises or enterprise groups. The business register can be particularly useful for identifying such changes; particularly if reference is made to the annual frozen copies of the register as required by the Regulation.

### ***Source of information for demographic analysis***

3.13 There is a growing demand for information on the structure and demography of the business population (i.e. enterprises and other linked statistical and non-statistical units). Issues relating to business demography are considered in Chapters 11-16.

3.14 This is an area in which many countries are starting to invest, and where maintenance of a register provides essential material. Article 5(2) of the registers Regulation states that "At the end of the first quarter of each calendar year, Member States shall make a copy of the register as it stands on that date and keep that copy for 10 years for the purpose of analysis". These frozen copies of the business registers provide an ideal basis for elementary demographic analyses.

### ***Tool for mobilising administrative sources***

3.15 The demand for economic information is constantly increasing, which could lead to statistical surveys imposing heavier burdens on enterprises. At the same time there is increasing political pressure to reduce this burden. An effective business register is vital to try to accommodate these conflicting pressures.

3.16 It is necessary to avoid approaching the same enterprise several times and asking for the same information. Above all, statistical surveys must try to avoid asking for information that the business has already supplied to other authorities.

3.17 One problem often mentioned regarding the mobilisation of administrative information for statistical purposes is that it is collected for units that do not always correspond to statistical units.

3.18 By correlating administrative units and statistical units, the register offers a partial solution to these difficulties. It is, however, often necessary to gather further information to identify how different legal units may be grouped together in a single enterprise.

### ***Dissemination***

3.19 In all countries there is a strong demand from many different bodies, and also from enterprises themselves, for a central reference register providing lists of businesses with standardised identification data (name, address) and a number of criteria for classification by size and activity.

3.20 A business register can open up possibilities of electronic data interchange (EDI) for statistical work, such as the transfer of large amounts of data on a regular basis between statistical institutes, businesses and national organisations. These needs are increasing with the development of the European Statistical System, and particularly as a consequence of data collection legislation in the fields of structural, short-term and product statistics.

3.21 National registers developed for statistical purposes can play a major role in satisfying these needs, in so far as they include legal units which are not statistical units and with data which are not confidential. This work is made easier if legal units can be identified by means of unique national identifiers. Countries often, however, take opposing views on the question of disseminating data on individual units. In some countries, lists of legal units classified by principal activity are not considered confidential and the legislation governing statistical institutes explicitly specifies that the circulation of these lists is one of their duties. In contrast, this type of circulation is prohibited in other countries. This issue is covered in more detail in Chapter 9.

### **3C - Relation to the BR Regulation**

3.22 This chapter discusses the objectives and uses of business registers. It is not, therefore, considered to be an interpretation of the Regulation.

**BUSINESS REGISTER  
RECOMMENDATIONS MANUAL**

**Chapter 4  
Maintenance of the Register**

**Status: First Revision – March 2003**

## **MAINTENANCE OF THE REGISTER**

### **Contents**

- 4A - Introduction
- 4B - Changes in Unit Structures and Variables
- 4C - Historical Register
- 4D - Relation to the BR Regulation

### **4A - Introduction**

4.1 Member States are increasingly using administrative sources of information to compile and maintain statistical registers. Some are integrating the information held in the two types of register with the aim of producing a multipurpose register. The VAT register is one source of administrative information used by most statistical institutes while registers maintained by other taxation authorities, social security administrations and chambers of commerce are others. Where these exchanges of information occur, the shape and content of the administrative and statistical registers can influence each other.

4.2 The maintenance of statistical registers should not be regarded as an isolated operation but as part of a co-ordinated approach towards the joint development of statistical and administrative registers, although care must always be taken that the interests of a business will not be harmed by the transfer to other authorities of information it has given to the statistical institute. The document "Fundamental Principles of Official Statistics in the Region of the Economic Commission for Europe" adopted by the Member States of the Economic Commission for Europe contains the following two principles that are relevant in this context:

- Principle 5. Data for statistical purposes may be drawn from all types of sources, be they statistical surveys or administrative records. Statistical agencies are to choose the source with regard to quality, timeliness, costs and the burden on respondents.
- Principle 6. Individual data collected by statistical agencies for statistical compilation, whether they refer to natural or legal persons, are to be strictly confidential and used exclusively for statistical purposes.

4.3 These principles clearly establish the need for a one way flow of data between administrative sources and statistical business registers. It is accepted in some countries that less sensitive information such as name and address, or possibly even activity classification (NACE code) can be shared, but it is universally accepted that sharing financial, input or output variables would compromise statistical integrity and independence, and could adversely affect response rates and public trust.

4.4 New enterprises should be recorded in the business register as soon as information about them is available, preferably before they start trading, so that information about investment in new buildings and plant can be collected. Changes to the data necessary for the conduct of surveys, such as addresses of reporting units, should obviously be reflected on the register as quickly as possible. The

treatment of units that have ceased to trade is considered in paragraphs 4.8 and 4.9 below.

#### **4B - Changes in Unit Structures and Variables**

4.5 Information received on changes to the structure, size or activity of a business may prompt a change to the details held for the statistical units representing that business on the register. The treatment and timing of changes of characteristics is discussed in detail in Chapter 17.

4.6 Some countries carry out proving exercises on sections of their registers from time to time, by adding questions to an existing survey or conducting ad-hoc surveys. For example, information might be sought from enterprises about the addresses, activities etc. of all their local units, or asking retailers tick which of a list of retailing activities (based on NACE) they consider to be their principal activity. Surveys of this kind sometimes indicate marked gaps or inaccuracies in business registers; therefore it is recommended that verification surveys should be part of the normal maintenance of the register (see Chapter 10).

#### **4C - Historical Register**

4.7 A difficult but important question is the extent to which the record of a unit should include the unit's history. For survey statisticians in most Member States this is a fairly simple matter, the statistician aims only at ensuring that all the units and only the units within the scope of his surveys are correctly recorded on the register. The record of many statistical units may not even include the date the unit first contributed to a survey, while the records of legal units may not include the accurate date of incorporation of a company or, for the sole proprietor, the date the business was started.

4.8 There are no provisions regarding the maintenance of historical data within business registers in the Regulation. An ideal historical register would be one that could answer any question about changes to a unit based on the contents of the register set out in Chapter 5. This ideal historical register would also hold related information about the dates of and reasons for (or categories of) any changes in the record, and the source of the information. The problem is best illustrated by an example. The ideal register could tell us that an enterprise operating at one address, making car body pressings, was the result of a management buyout of one of the activities of a motor-car manufacturer for which the register used to record, at the same address, a local unit engaged in the same activity.

4.9 The scenario in the preceding paragraph is a real-life example. Many national statistical institutes are unable to deploy the resources required to build and maintain a register that could provide such information. In this case, there are various possible compromise scenarios, including the three set out below:

- A new register is put in place at the beginning of each year. During the year all changes in units and the dates of and reasons for those changes would be

recorded for the unit. At the end of the year, the register would be copied and stored, following which all units no longer within the scope of the register would be weeded. A register designed along these lines would be smaller than the ideal register described above, but would face the same definition-related problems and the same difficulties of establishing rules for the application of these definitions by the staff of statistical institutes. There would be the additional task of designing a system which could link together a series of registers stored year by year in order to produce an historical record of a unit. It would, however, be possible to study both the development of the population of businesses over time, and the development of the individual business and its statistical units.

- The register can be regarded as a tool whose purpose is to serve the survey statistician. Units that drop out of a survey would drop out of the register only when they ceased to be of interest to the statistician - in other words, when the survey for which they had been selected was no longer being used. Changes in size or industry classification would be made but there would be no record that a change had occurred. The register would be copied and stored at intervals, perhaps but not necessarily at the end of each year. A study of these snapshots would show how the business population had changed but would not throw light on changes in individual businesses in the way the other approaches could, nor would it be possible to analyse the reasons for the creations and closures recorded.
- The register can be analysed at regular intervals (e.g. annually) to provide a series of pictures of the structure of the register, e.g. the numbers of legal units and statistical units by type, activity, employment and turnover size groups, region etc. Some Member States already publish such analyses (although they may not be as complete).

4.10 The Regulation merely states that at the end of the first quarter of each calendar year the Member States shall make a copy of the register as it stands on that date and keep this copy for ten years for the purpose of analysis. This is a minimum requirement, which may be expanded when recommendations concerning the demographic analysis of the statistical units have been approved.

#### **4D - Relation to the BR Regulation**

4.11 This chapter describes possible methods relating to the maintenance of business registers. It is not therefore a direct interpretation of the Regulation, but is intended to assist with the implementation of the relevant provisions of the Regulation.



**BUSINESS REGISTER  
RECOMMENDATIONS MANUAL**

**Chapter 5  
Contents of the Register**

**Status: First Revision – March 2003**

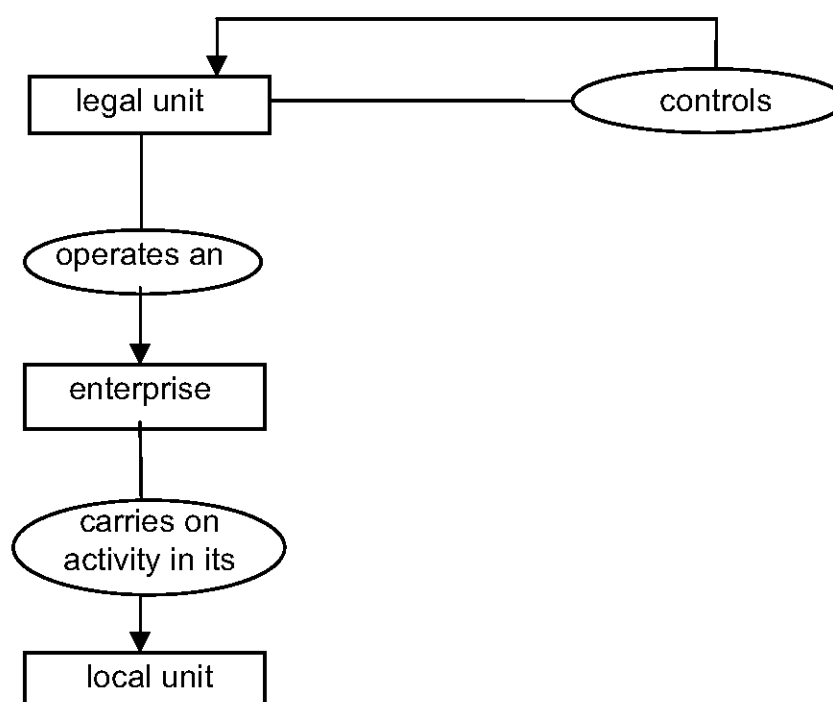
## CONTENTS OF THE REGISTER

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- 5B - Identification Variables
- 5C - Stratification Variables
- 5D - Demographic Variables
- 5E - Variables Showing Relationships Between Units
- 5F - Other Variables
- 5G - Relation to the BR Regulation

### 5A - Introduction

5.1 The conceptual model of the information for registers implicitly defined by the business registers Regulation is very simple. It explicitly comprises three units: the enterprise, the local unit and the legal unit, and three relationships between entities. It also implicitly includes the enterprise group.



5.2 The information that needs to be recorded for each type of unit depends on the intended uses of the register.

5.3 National business registers developed for statistical purposes clearly have to identify units accurately in order to:

- permit the collection of information about them via administrative sources;
- provide a sampling base for surveys;

- permit demographic analysis of the population of enterprises and their associated units.

5.4 Statistical business registers are not meant to be systems for conducting surveys or databanks for storing all the information collected on the production system.

5.5 This clarification of the functions of the register permits analysis of the information that it has to record. This information falls into four categories - identification variables, stratification variables and demographic variables - which are directly linked to the explicit units of the model - and variables associated with the relationship between units, which relate indirectly to the implicit units.

5.6 In the following table the variables of the business registers Regulation are broadly divided into these categories. The categories are not mutually exclusive, e.g. legal forms are used as identification, stratification and demographic (enterprises by legal form) variables. Optional variables are shown in brackets.

	Legal unit	Enterprise	Local unit
<b>Identification variables</b>			
Identity number	1a	3a	2a
+ external identity numbers	1j, 1k		2i
Name + Address	1b		2b
Legal form	1f		
<b>Stratification variables</b>			
Principal activity		3c	2c
Secondary activity		3d	(2d)
Ancillary activity			2k
Size: persons employed		3e	2e
Size: turnover		3h	
Size: net assets		(3i)	
Geographical location			2h
<b>Demographic variables</b>			
Date of creation	1d	3f	2f
Date of cessation	1e	3g	2g
<b>Relationship variables</b>			
Unit controlling	(1g), (1h)	3b	2j

**Other variables**

1c, 1i

## **5B - Identification Variables**

### ***Identity Numbers***

5.7 Identity numbers must not change throughout the life of the unit identified (a possible exception is the legal unit as discussed below). Thus, although the characteristics attached to that unit may change during the life of the unit, its identity number must be independent of those characteristics.

5.8 Experience has shown that a good solution is to give each unit a non-significant serial number and a computer control key.

5.9 It is important to avoid confusing the identity numbers of the different categories of unit. It is therefore preferable to adopt different identity number structures (length and type of character) for each type of unit. Various solutions are possible.

#### **5.10 Legal Units - variable 1a, Identity number.**

The identity number of the legal unit can either be specific to the statistical business register or external (common and shared with other institutions). A common business identification number exists in the majority of Member States. Common business identification numbers, shared with fiscal and other government departments, greatly facilitate the connection of the statistical business registers with other registers. If the common identification and the identity number of the legal unit are the same, its updating should follow the changes taking place in the administrative source, which allocates the identity numbers. For instance a change of legal form from natural to legal person may result in the fiscal administration giving a different identity number to the same economic unit. However, if the common number is not the identity number of the legal unit in the statistical business register, the common number should be treated as a variable and a record of its changes should be kept.

#### **5.11 Local Units - variable 2a, Identity number.**

As the identity number of a local unit should remain the same from commencement to cessation, it is advisable to use a register-specific identity number for local units. External (shared) identity numbers may also exist for local units, but as these may change during the existence of the unit, it is recommended to treat external identity numbers as variables, keeping track of their changes.

#### **5.12 Enterprises - variable 3a, Identity number.**

As the continuity rules for enterprises should be applied, the identity number should remain the same from commencement to cessation of activities.

### ***External identity numbers and links to administrative sources***

5.13 Since one function of the register is to enable information in administrative files to be mobilised, cross-links with those files must be maintained. The identity numbers used to record units in administrative files should therefore be included in the business register.

5.14 The problem is solved automatically in countries where a common identity number is used, for at least some units. It may then be in the interests of

statisticians to adopt this number for their own purposes. It is unlikely, however, that such units will meet the full statistical definition of the enterprise, so separate enterprise identifiers will usually be needed.

**5.15 Legal Units** - Variables 1j and 1k refer to links to administrative files, which may contain further information about the legal unit, which can be used for statistical purposes.

*5.16 Variable 1j, Reference to other associated files, including customs files, in which the legal unit is recorded and which contain information which can be used for statistical purposes,*

should contain links to customs and other files. For every legal unit recorded in administrative sources, the different relations should be stored separately. This can be achieved in several ways, for example:

a) Recording in the business register the reference number of the unit in the other register(s), together with the legal unit identity number referred to above.

b) Adding one or more marks to the business register to indicate that the legal unit is also present in other register(s) under the same identification number.

**5.17** In the absence of a unique identifier, the link can also be built by matching name/address or by other ways (this cannot be recommended; but matching names/addresses can be useful for detecting errors).

*5.18 Variable 1k, Reference to the register of intra-Community operators drawn up in accordance with Council Regulation (EEC) No 3330/91 of 7 November 1991 on the statistics relating to the trading of goods between MS,*  
should contain the reference to the register, commonly known as Intrastat. The comments on variable 1j above also apply to 1k.

**5.19 Local units** - *variable 2i, Reference to associated registers in which the local unit appears and which contain information which can be used for statistical purposes,*

is extremely country-specific. There may not be any such files in some countries. In others they may offer one or more important administrative sources and there may be many references for one local unit. The associated registers (e.g. labour administration register) may refer to the local unit, but also to a legal unit, this should be checked very carefully. This might be the case, if the local unit is placed at the residence of a legal unit, which consists of several local units. In the case of a complex enterprise, there may be several legal units having a local unit at the same address, probably forming one local unit for statistical purposes. In this case, all links should be stored.

### ***State of activity or situation***

**5.20** It can be argued that only enterprises and their local units that are active need to be recorded in the register. Similarly, legal units are of limited interest to the register if they are not the legal medium for an active enterprise.

5.21 In practice, however, there are many reasons why it will often be necessary to take account of dormant legal units in the register, or to retain enterprises or other statistical units that have ceased trading. The two main reason are to be able to study the demography of these units as described in chapters 11 - 16, and to record the control links between legal units, which may involve also dormant units.

5.22 A code can be used to specify the "live" or "dead" status of the unit, perhaps differentiating between different categories such as statistically live or dead, dormant, in receivership etc. For a legal unit, that status will be legal; for statistical units it will be "economic". This sort of code is not required in the Regulation, but gives useful extra information beyond the compulsory variables of date of commencement and date of cessation.

### ***Name, address and contact details***

5.23 Each legal unit and local unit has a name that must be recorded; similarly every unit must have at least one address. Where possible, addresses should be supplemented by any specific particulars stipulated by the postal regulations (post code, post office box number, etc.) and telephone, fax, e-mail and web address details.

5.24 **Legal units** - *variable 1b, Name, address (including postcode), and optionally: telephone, electronic mail and fax numbers and telex address.*

These can refer to a legal or a natural person. In the latter case it may be useful to maintain both a business and a personal address. The address should be recorded at the most detailed level possible. It should be noted that the optional information is of foremost importance, namely the telephone and e-mail.

5.25 In the case of natural persons, the following information may be recorded.

- Family names
- Names normally used (e.g. the name of the spouse in countries where the law permits this) and possibly pseudonyms.
- Forenames
- Sex (if only for address purposes - Dear Mr/Ms ...)

5.26 This information is often insufficient to identify a person with certainty. It may therefore be useful to record in addition either the date of birth or, in countries where it exists, the personal identity number.

5.27 In the case of legal persons their official business name must be recorded. But in some countries and for some legal forms, the business name may be very long and will have to be abbreviated. In that case, very strict rules on abbreviation must be applied.

5.28 Moreover, legal persons often use initials, an acronym, or a trading style instead of their official name in their business or administrative relations. There must be provision for recording this information separately.

**5.29 Local units** - *variable 2b, Name, address and other identifying information.*

See variable 1b for legal units above. If there is only one local unit in the enterprise, a separate name may not exist, but the actual address of the location and the contact information should always be recorded. The official name of the local unit is generally the same as the enterprise that controls it, though different local units within an enterprise may use different trading styles (also known as "signboard names" or "commercial names"). Provision should be made for recording these trading styles where they exist.

5.30 For a local unit the actual address of the location of the unit will always be recorded. That address must be given a code referring to a national territorial nomenclature that at least corresponds to level 5 of the Community Nomenclature of Territorial Units for Statistical Purposes (NUTS). It would be preferable if that nomenclature or national geographical code enables the unit to be pinpointed as accurately as possible, at the level of the street, section of street and building.

5.31 It will always be useful to provide for the possibility of recording a correspondence address in addition to the address of the local unit, if the unit wishes correspondence relating to statistical surveys to be sent elsewhere.

**5.32 Enterprises** - Name, address and contact details are not specifically required for the enterprise in the Regulation. An enterprise often uses the name of the main legal unit that operates it. It is then unnecessary to record this name again, as long as a record is kept of the link between the enterprise and that legal unit.

5.33 An alternative solution is to record addresses for local units only and in the case of legal units and enterprises to record the identity number of the local unit that is their registered office (registered office is the location given by the legal unit to registration authorities). This solution is implicitly recommended by explanatory note 1 on the definition of the local unit, annexed to the Regulation on statistical units, which specifies: "however, every legal unit must have a local unit as its registered office, even if no-one works there."

5.34 Other statistical units, such as kind of activity units and local kind of activity units, created by statisticians do not generally have a name that is used in public.

### ***Legal form***

5.35 The legal form (also known as legal status) of the legal unit is very useful information not only for eliminating ambiguity in identification searches, but also as the possible criterion for selection or stratification of surveys. Experience has shown that it will often be useful to make marginal adjustments to information collection processes and questionnaires according to the legal form of the legal unit operating an enterprise.

**5.36 Legal Unit** - *variable 1f, Legal form of the unit.*

The character of legal or natural person is decisive in fiscal terms, for the tax regime applicable to the unit depends on this. That means any statistical register fed with fiscal records will have that information. In addition to legal and natural persons, it is increasingly important that statistical business registers also record a basic

breakdown such as the one given in the table below. A code representing the legal form should therefore be recorded in accordance with the classification of legal forms or categories developed by each country. For the monitoring of the internal market there is also an interest at the European level to be able to distinguish quoted and incorporated companies, as well as European companies as set up according to Council Regulation (C) No 2157/2001 (OJ L294 of 10.11.2001). There is a link between this variable and variable 1c (*requirement for the legal unit to publish its annual accounts (yes/no)*). See paragraph 5.103 below.

<b>Main standard legal forms</b> (source - ESA(95) handbook, table 2.3)	
Description	Institutional Sector
1. Private and public corporations	S11, S12
2. Co-operatives and partnerships recognised as independent legal entities	S11, S12
3. Public producers which by virtue of special legislation are recognised as independent legal entities	S11, S12
4. Public producers not recognised as independent legal entities	
a. those with the characteristics of quasi-corporations	S11, S12
b. the rest	S13
5. Non-profit institutions recognised as independent legal entities	S11, S12, S13, S15
6. Partnerships not recognised as independent legal entities	
a. those with the characteristics of quasi-corporations	S11, S12
b. the rest	S14
7. Sole proprietorships	
a. those with the characteristics of quasi-corporations	S11, S12
b. the rest	S14
8. Holding corporations whose preponderant type of activity of the group of corporations controlled by them is the production of goods and non-financial services / financial services	S11, S12

Key to institutional sectors:

S11 - non-financial corporations

S12 - financial corporations

S13 - general government

S14 - households

S15 - non-profit institutions serving households

## 5C - Stratification Variables

5.37 Apart from location and legal form, which have already been examined as identification variables, the criteria used for selecting fields of inquiry and taking samples are activity, size and institutional sector.

### **Activity**

5.38 Every statistical unit, enterprise, local unit or kind-of-activity unit must be associated with variables that define its activities.



5.39 Enterprises and local units should indicate the principal activity actually carried on within the unit by reference to the NACE (4-digit) class, or a more detailed national classification based on NACE. If several activities are pursued simultaneously in the same unit, the principal one is determined according to the rules defined in the introduction to NACE. However, contrary to the provisions in the introduction to NACE, the activities actually pursued in a local unit will always be taken into account for the purpose of maintaining the register, even if its activities are ancillary in the context of the enterprise.

5.40 Significant secondary activities are required to be recorded. This information is important for the purposes of the compilation of various statistics, particularly structural business data. It can also be used to indirectly determine the probable existence of kind of activity units and local kind of activity units. The secondary activity of an enterprise is said to be significant if it represents over 10% of the enterprise's total activity or over 5% of national activity of that type. Recording the same information for local units is also recommended if local kind of activity units are not explicitly recorded.

5.41 **Local Unit** - *variable 2c, Activity code at the four-digit (class) level of NACE.* The activity code is decided according to the rules in the NACE handbook. If the activities are ancillary in the context of the enterprise, variable 2k should indicate this.

5.42 *Variable 2d, Secondary activities, if any, at the four-digit level of NACE (optional).*  
Secondary activities can be used for determining local kind-of-activity units (LKAUs).

5.43 *Variable 2k, Activity carried out in the local unit constituting an ancillary activity of the enterprise on which it depends (yes/no).*  
If the local unit has been identified as an ancillary unit, this fact should be positively shown in the register and if it has clearly been identified as a non-ancillary unit it should also be shown. It is understood that the absence of any mark should be interpreted as 'no knowledge' about this variable. This variable enables statistical analyses to reallocate the cost of ancillary activities to the activities for the benefit of which they are pursued.

5.44 **Enterprise** - *Variable 3c, Activity code of the enterprise at four-digit (class) level of NACE in which the principal activity or all the activities of the enterprise is or are included.*

The activity code is decided according to the rules in the NACE handbook. Administrative sources may include a range of activities if the enterprise has a legal capacity to operate in different trades. However, the quantitative information on the importance of all such activities may not be available in the source, unless the enterprise has been the subject of surveys. If the enterprise is linked to just one local unit, the principal activity for both should be the same (see variable 2c).

5.45 *Variable 3d, Secondary activities, if any, at NACE four-digit level, if they amount to 10% of the total for all activities of the gross value added at factor cost for each or*

*account for 5% or more of national activity of this type; this point concerns only enterprises which are the subject of surveys.*

The knowledge of secondary activities is very important for large enterprises and for determining kind-of-activity units. Generally this knowledge is gained through surveys. Administrative sources may also contain information on secondary activities, possibly less accurately.

**5.46 Additional codes** - Like any classification, NACE has focused on certain criteria for the analysis of activities. It is often necessary to go further in drawing up business statistics. Ideally, one should record whether, overall, the activities pursued in a unit fall within the market or non-market sphere. This in turn will mean working with a code that specifies whether, overall, an enterprise or local unit engages in market activities, public non-market activities or private non-market activities.

5.47 Other additional codes can usefully be applied to distinguish continuous activity from seasonal activity or, within NACE groups engaged in the manufacture of industrial equipment, to indicate units that are classified under these headings because they actually manufacture it, as opposed to those that only carry out repairs or installation.

## **Size**

5.48 A size measure for statistical units is essential for sample design, grossing-up the results to the population and analysing populations. Several criteria may be used to construct a size indicator: employment, turnover, amount of net assets, etc.

5.49 What matters is that this indicator can be updated annually for all units regardless of whether or not they were selected the previous year for inclusion in a survey sample. Only indicators that can be updated from exhaustive administrative sources should therefore be used. That constraint limits the choice of possible indicators.

### **a) Size based on employment**

5.50 The register should record the actual number of persons occupied. The main aim is not to measure employment but to obtain a stratification variable. Occupied persons are defined in SNA 1993, par. 7.23 as 'In order to be classified as occupied - i.e. either employed or self-employed - the person must be engaged in an activity that falls within the production boundary of the SNA'. This is not exactly the same as persons employed, as defined in Structural Business Statistics Regulation, variable (16 11 0), but for business register purposes the difference is negligible.

5.51 In almost all Member states the actual number is recorded. If this is not possible, a size code must be used. The size classes defined in the Regulation are: 0, 1, 2, 3-4, 5-9, 10-19, 20-49, 50-99, 100-149, 150-199, 200-249, 250-499, 500-999 and then in number of thousands.

Note that 0 means less than 1/2 person measured in terms of full time equivalents (or head counts, see 5.56 below). Paragraph 6.16 includes more discussion on the employment in very small enterprises.

- ***What employment?***

5.52 Total employment is preferable for stratifying survey samples for very small units, and has been adopted by the registers Regulation. This figure can be obtained directly in some countries, while other countries have access only to the number of paid employees for all units. However, the latter do have a statistical measure of the difference between total number employed and the number of paid employees for the sample of small units that they survey. They can therefore make a statistical adjustment to their figures on paid employees by adding a constant representing unpaid employment (including working proprietors), calculated e.g. according to legal form and activity: for sole proprietors, total employment = paid employees + 1; for partnerships, total employment = paid employees + 2. Depending on the availability of administrative sources more sophisticated methods have been devised in some countries.

5.53 Thus, a direct or indirect measure of total employment will be adopted in national registers to meet the needs of international harmonisation.

- ***Employment on what date?***

5.54 The time reference used for the measurement of employment should be the year, that is the labour force should be an annual average, though this can be approximated by using the number of persons employed (occupied) at any given moment during the year if this is the only information available. How the annual average is calculated depends on the updating frequency of the register. If the unit operates during only part of the year (seasonal, new enterprises), the average should be calculated for that period.

5.55 This choice is consistent with the one regarding the principal activity; the latter is updated by the results of surveys relating to a year and therefore, in theory, represents the activity that has on average been the principal activity during the year, and not the principal activity on a particular date.

- ***Employment in full-time equivalent or head count?***

5.56 Both head counts and full-time equivalents (FTE) have certain advantages and it is recommended to record employment in terms of both head counts and FTEs if possible. Head count is the number of physical persons, full time and part time, employed by a unit. FTEs are defined in National Accounts (FTE employment is the number of full-time equivalent jobs, defined as total hours worked divided by average annual hours worked in full-time jobs) and Structural Business Statistics (variable 16 14 0). FTEs are a more accurate measure of labour input than head counts, but as the concept of 'full-time' may vary, the definition doesn't really make the FTE data comparable. Given the administrative origin of the data, it may not be possible to calculate FTEs in some countries. Another possibility is to use 'hours worked' directly. This is gaining favour in employment statistics, but the comment on data availability is also likely to apply to this variable.

**5.57 Local Unit** - variable 2e, *Size of labour force, as indicated in paragraph 3e of the Annex.*

This variable is calculated in accordance with the rules above.

**5.58 Enterprise** - variable 3e, *Size: measured by the number of persons occupied or, failing that, by size class.*

This variable is calculated in accordance with the rules above. As the enterprise is linked to one or more local units it is clear that the size of the labour force in the former should equal the sum of the latter.

- **Wage and salary earners indicator**

5.59 Even if the size indicator is based on total employment, a binary indicator reflecting the existence of wage and salary earners will always be a useful addition.

## **b) Size based on turnover**

5.60 For some surveys, mainly cyclical ones and for some spheres of activity it may not be very appropriate to stratify according to employment. Moreover, for accurate calculation purposes, it can be useful to use additional variables. It is therefore desirable to be able to use other indicators of size.

5.61 Thus, the size of enterprises should also be measured in terms of their turnover. The figure used should be the actual turnover. Only if that is not available, a code based on the following size classes (in Euro): < 1 million, from 1 to < 2, from 2 to < 4, from 4 to < 5, from 5 to < 10, from 10 to < 20, from 20 to < 40, from 40 to < 50, from 50 to < 100, from 100 to < 200, from 200 to < 500, from 500 to < 1000, from 1000 to < 5000, ≥ 5000.

Sometimes turnover is available at some delay. This may cause problems especially for business demography and it may be necessary to impute turnover, as instructed in par. 5.64.

5.62 The definition of turnover to be used is given in Commission Regulation 2700/98 on the definitions of variables to be used in structural business statistics.

*"Turnover comprises the totals invoiced by the observation unit during the reference period, and this corresponds to market sales of goods or services supplied to third parties. Turnover includes all duties and taxes on the goods or services invoiced by the unit with the exception of the VAT invoiced by the unit vis-à-vis its customer and other similar deductible taxes directly linked to turnover.*

*It also includes all other charges (transport, packaging, etc.) passed on to the customer, even if these charges are listed separately in the invoice. Reduction in prices, rebates and discounts as well as the value of returned packing must be deducted. Income classified as other operating income, financial income and extraordinary income in company accounts is excluded from turnover. Operating subsidies received from public authorities or the institutions of the European Union are also excluded."*

5.63 This is in line with the definition given in Article 28 of the Fourth Council Directive (78/660/EEC) on the annual accounts of certain types of companies:

*"The net turnover shall comprise the amounts derived from the sale of products and the provision of services falling within the company's ordinary activities, after deduction of sales rebates and of value added tax and other taxes directly linked to the turnover."*

5.64 Fiscal sources will usually provide this information, either on the basis of corporate income tax or VAT returns. In cases where firms are not subject to VAT and are not legal persons, this information may be unavailable. However, those cases will for the most part fall within the category, for which the variable is optional (turnover equal or below Euro 2 million). Whenever possible, it is strongly recommended to also include turnovers below this threshold in the business register. One possibility is to estimate it based on the level of employment using a standard turnover per head ratio calculated by activity class.

5.65 Since turnover can be gained from different administrative sources with different purposes, this variable is not always unique, and bias may arise. Surveys can also be used to get information on this variable.

5.66 Notes:

- Credit sales are recorded at the time of delivery.
- Turnover as actually recorded in the enterprise is taken into account. In trade activities (e.g. travel agents) the enterprise may act as intermediary, turnover then being made up of "commission", or as an "invoicing-trader", the turnover being made up of the purchase/resale, i.e. the sum effectively paid by the customer. (It is not a question of the "net value", which can only be calculated in terms of the "value of production").
- Turnover includes the sale of goods and services relating to the principal activity of the enterprise (or local unit) but also includes those coming under secondary activities.
- Turnover excludes the VAT collected by the seller on behalf of the State: an indirect tax is levied on the price of the products sold, according to percentages determined by the type of product.
- Turnover is an essential piece of accounting data. Even if it cannot always be used to compare one activity or one enterprise with another, it is the only parameter that permits a breakdown by product or allows exports to be ascertained.

5.67 **Enterprise** - variable 3h, *Net turnover from sale of goods and services (except for financial intermediaries); failing that, allocation to a size class.*

This variable is calculated according to the rules set out above.

### **c) Size based on net assets**

**5.68 Enterprise - variable 3i, Net assets (assets after allowing for depreciation less liabilities - financial intermediaries only) (optional).**

For enterprises in the financial market sector whose activity falls within section J of NACE, a size criterion, which is often relevant, is the amount of the net assets. Under the business registers Regulation, the inclusion of this variable is optional. It is recommended that this amount be recorded direct without any code by size class.

5.69 The amount of the net assets is based on company balance sheets and is taken as the net value of the assets (less depreciation) less the value of current debts.

### ***Geographical location***

**5.70 Variable 2h, Geographical location code (territorial units).**

The actual address and postal code (possibly a separate variable) of the local unit are recorded in variable 2b. These should be used to derive classifications relating to the geographical location of units, including the NUTS classification, preferably at the most detailed level. Other national classifications such as administrative regions, travel to work areas, health or education regions etc. can also be derived and stored if required.

### ***The institutional sector***

5.71 Each enterprise should be capable of being classified in an institutional sector (and possibly sub-sector) for the purposes of the national accounts. This is not a requirement of the registers Regulation, but may be necessary in practice depending on the requirements of the statistical systems in Member States.

5.72 The European System of Accounts (ESA95) distinguishes between the following institutional sectors:

- Non-financial corporations
- Financial corporations
- General government
- Households (as consumers or entrepreneurs)
- Non-profit institutions serving households
- Rest of the world

5.73 An "institutional sector" code therefore can be recorded for enterprises. This code may be implicit in some cases, i.e. it may be possible to calculate it from other explicitly recorded codes.

5.74 A code indicating whether, in overall terms, the activity of an enterprise is commercial or not can permit an initial classification by separating public administration sectors and non-profit institutions serving households.

5.75 The principal activity of the enterprise then isolates the "financial corporate enterprises" sector.

5.76 In order to proceed to separate financial corporate and quasi-corporate enterprises from enterprises attached to the household sector, two criteria must be applied: the legal form of the legal unit operating the enterprise and, if the legal unit is a natural person, whether or not it keeps annual accounts for the assessment of its tax liability.

5.77 It can therefore be appropriate to provide an intermediate code indicating, in the case of enterprises operated by a natural person, whether or not they keep accounts. That code might perhaps record whether the enterprise is taxed on profits on the basis of its accounts (actual profits) or on the basis of an assessment.

Market character	Principal activity of the enterprise	Legal form of the legal unit	Accounts kept	Institutional sector
Public non-market	/	/	/	Public administration
Private non-market	/	/	/	Private non-profit institution
Market	= section J of NACE	/	/	Financial corporate enterprises
	≠ section J of NACE	legal person	/	Non-financial corp. and quasi-corporate enterprises
		natural person	yes	Non-financial corp. and quasi-corporate enterprises
			no	Households

5.78 In the non-financial corporations and quasi-corporate enterprises sectors, units should be classified in sub-sectors separating:

- Public enterprises
- Private enterprises under foreign control
- Private enterprises under national control.

## 5D - Demographic Variables

5.79 At least two variables (dates) must be recorded for each unit to permit an initial demographic analysis of the population of enterprises and their local units.

### a) Date of creation

5.80 **Legal Unit** - *variable 1d, Date of incorporation for legal persons or date of official recognition as an economic operator for natural persons.*

The 'date of official recognition' may be the date on which an identification number is given, be it a VAT number or other. In general this is the prerequisite for a firm to

engage in legal economic transactions. Given that a statistical register is usually fed with files from the social security, fiscal administration or similar sources, a date for an official recognition will always exist and should be stored in the business register.

**5.81 Local unit** - *variable 2f, Date of commencement of the activities the codes of which are given in 2c.*

Taken literally, this date would refer to the date, when the present principal activity started (the local unit could have existed before that). As this would be inconsistent with the continuity rules, it is recommended that the date should refer to the birth or other creation date of the local unit. The date can be obtained from surveys or administrative sources.

**5.82 Enterprise** - *variable 3f, Date of commencement of activities of the enterprise.*

The date refers to the birth or other creation date of the enterprise and it is different from variable 1d, because the continuity rules for enterprises should be applied. The date of birth is in principle the date on which the first financial commitments are made, but in practice it may refer to the registration date in the administrative source.

## **b) Date of cessation**

**5.83 Legal unit** - *variable 1e, Date on which the legal unit ceases to be legally responsible for an enterprise.*

This date is not easy to collect but probably the registration of the event is far more important than the precise day and month of its having taken place. Basically, the legal unit ceases to be legally responsible for an enterprise when:

(a) The legal unit ceases to exist;

(b) All the means of production of the legal unit are bought by or transferred to another legal unit, which is then the responsible unit for the enterprise.

5.84 Event (a) is not likely to be associated to a definite date. There's usually no interest from the part of a legal unit in officially announcing its death. Among other reasons, this is often a slow process of diminishing activity but even if the activity completely ceases, the owner may still think it could resume in the future, hence it may be interested in keeping a legal name, a fiscal number and other legal attributes.

5.85 Between activity and death there will usually be a period of inactivity, in which the unit may be recorded as 'dormant'. A sign of such a situation would be the lack of employees (zero PAYE returns), the cessation of tax compliance or the inability to contact the unit after repeated efforts.

5.86 Only after 24 months of such a status may the unit be erased from the statistical business register and that is the date to be retained. It is obvious that the register manager will always know such a date. The choice of 24 months as the relevant period allows for the possibility of the register being updated annually, and also meets business demography requirements that a unit should be inactive for two years before it can be considered a real death. However, there may be units, which



according to this rule might be considered 'dormant', but which should be kept on the system, e.g. holding companies.

5.87 Event (b) is usually documented in a contract and so a record of its having occurred will exist. Even if the exact date of the event is not transmitted to the statistical institute, the year in which it occurred might be.

5.88 In general, most legal units in a register are not linked to any other legal unit, so that the relationship legal unit = enterprise holds in most cases. This means that an event like a change in ownership may pass unnoticed, unless the new units to be introduced to the statistical business register are checked against existing units using, for example, location and activity as criteria. This may mean that the event occurred during the past fiscal year or that, having occurred earlier, it was only recently registered.

5.89 For statistical purposes it would be sufficient to include a new link in the business register and to assume it took place during the previous period, though a direct check (e.g. a phone call) is to be recommended.

5.90 Such events are statistically rare so that the units in question may be surveyed to check the exact nature of the change and to build knowledge about it. Focusing on the actual storage of information in the statistical business register, two possibilities are open here:

- Situation A: The register already has the required date for all units, in its present and past versions.
- Situation B: There is a significant number of units for which no date is available in past versions of the register

5.91 These two different situations translate into the same recommendation, only as far as the present and future versions of the register are concerned. Only the availability or not of a series for past values is at stake. For these it is recommended to do an annual 'cleaning' of the register by comparing the populations of t-2, t-1 and t in order to see which units were inactive during the two previous periods. Consequently a date of cessation could be added, and the unit would no longer appear in the register as an active unit (as before, some manual checking may be necessary concerning the 'genuine dormants' like holding companies).

5.92 **Local unit** - *variable 2g, Date of final cessation of activity.*

This variable refers to the death or other deletion date of the local unit. As already explained for legal units (variable 1e) above, this date may not be available with any precision, only the fact that the local unit has ceased to exist during the reference year may be known.

5.93 **Enterprise** - *variable 3g, Date of final cessation of activities of the enterprise.*

This variable refers to the death or other cessation date of the enterprise and is interpreted in a way similar to the corresponding variable (2g) for local units (see above). It can be added that the links between local or legal units and enterprises should be checked, because certain conditions should be met relating to the continuity of the enterprise (see Chapter 14).

### **c) Date of entry in the register**

5.94 For certain purposes, e.g. the analysis of lags between real world events and their reflection on a statistical business register, it may be useful to hold information on the date of entry of legal or local units on the register. This is not a requirement of the registers Regulation.

## **5E - Variables Showing Relationships Between Units**

### ***Organisational relationships***

5.95 The relationship between a legal unit and the enterprise that it operates and the relationship linking the enterprise to subordinate local units should be clearly identified.

5.96 **Local unit** - variable 2j, *Identity number in the register of the enterprise on which the local unit is dependent.*

A link must exist between the local unit and the enterprise. This link can be included in the register by adding the identity number of the enterprise to the local unit file. Other ways are conceivable, for example, when the enterprise consists of one local unit only, another (simple) arrangement of the business register is possible.

5.97 **Enterprise** - variable 3b, *Identity number(s) of the legal unit(s) legally responsible for the enterprise.*

This is not a problem for enterprises consisting of one legal unit. In case of complex enterprises the identity numbers of all legal units and their relations to each other have to be recorded.

### ***Control relationships***

5.98 Two optional variables describe control relationships between legal units:

*Variable 1g, Name and address of any non-resident legal unit, other than a natural person, which controls the legal unit.*

This is an important variable for globalisation statistics. As the exact information is difficult to obtain and update, an indication of the existence of a non-resident controlling unit would be an acceptable compromise.

*Variable 1h, Identity number of the legal unit in the register which controls the legal unit.*

This is indispensable for delineation of enterprises and for enterprise groups and therefore its inclusion in statistical business registers has become more and more important. The concept of control is discussed in Chapter 21. To additionally record the shares and to identify all the units having a certain amount of shares in the unit would be also useful if it is available. This may give an indication of whether a unit is controlled by another or not.

### ***Enterprise Groups***

5.99 Although the register centres on enterprises and their local units, the fact that enterprises are members of groups should also be taken into account.

5.100 Membership of a group is an important stratification criterion for analysing enterprise performance and behaviour, and this criterion will sometimes need to be taken into account in selecting fields of inquiry.

5.101 A group is a set of enterprises controlled directly or indirectly by the same legal unit; control can be exerted as the power to appoint the managers of the legal unit that operates the enterprise.

The group, a set of enterprises, can also be seen as a set of legal units, which may be larger than the set of legal units operating the enterprises, which make up the group and may include dormant legal units.

5.102 Thus, the group dimension may be recorded by the relationship between legal units rather than the relationship between enterprises. However, this solution does have disadvantages for the historical monitoring of groups, since the legal unit that is "head of the group" may change over time. It is therefore more useful to introduce the group into the register as an explicit unit with its own identity number. A separate Chapter 21 on enterprise groups is included in this Manual.

## **5F - Other Variables**

5.103 Two other variables are required to be held for legal units under the registers Regulation:

*Variable 1c, Requirement for the legal unit to publish its annual accounts (yes/no).*

This requirement depends on national legislation, which may vary between countries and usually concerns incorporated or quoted firms. . The data stemming from published accounts could be considered free from confidentiality restrictions and suitable for exchange with other statistical institutions, but this is not always the case, e.g. when these data are linked to data collected via surveys.

*Variable 1i, Character of 'public undertaking' of the legal unit within the meaning of Commission Directive 80/773/EEC (yes/no) (for legal persons only).*

Public undertaking is defined in Article 2 of this Directive as "any undertaking over which the public authorities may exercise directly or indirectly a dominant influence by virtue of their ownership of it, their financial participation therein, or the rules that govern it. A dominant influence on the part of the public authorities shall be presumed when these authorities, directly or indirectly in relation to an undertaking:

- hold the major part of the undertaking's subscribed capital; or
- control the majority of the votes attaching to shares issued by the undertakings; or
- can appoint more than half of the members of the undertaking's administrative, managerial or supervisory body."

This characteristic may be one legal form or it may be obtained from an administrative source. It may be interpreted in different ways in different administrations.

## **5G - Relation to the BR Regulation**

5.104 This chapter describes the variables to be held for each unit required to be included in the register by the Regulation. The operational instructions for the variables of the Regulation should therefore be regarded as an interpretation of the Regulation.

**BUSINESS REGISTER  
RECOMMENDATIONS MANUAL**

**Chapter 6  
Coverage of the Register**

**Status: First Revision – March 2003**

## **COVERAGE OF THE REGISTER**

### **Contents**

- 6A – Introduction
- 6B – Activities of Households
- 6C – NACE Section Q
- 6D – Inclusion of Optional NACE Sections
- 6E – Very Small Enterprises
- 6F – Relation to the BR Regulation

### **6A - Introduction**

6.1 In principle, business registers should record all enterprises (and associated legal and local units) that are active in the national economy, i.e. contributing to gross domestic product (GDP) at market prices. This may not always be possible in practice, often for cost reasons, but for the purposes of international comparison it is desirable that the coverage of business registers should meet agreed standards, and the omission of any groups of units must involve an assessment of their economic importance. The registers Regulation defines the units that must be included, and those that may be excluded.

### **6B - Activities of households**

6.2 The Regulation states that its requirements do not apply to households:

- in so far as the goods they produce are for their own consumption,
- in so far as the services they produce involve the letting of own or leased property (group 70.2 of the statistical classification of economic activities in the European Community - NACE).

6.3 In the first point, production can be consumed by the household, e.g. production from domestic gardens, or invested in the household e.g. do-it-yourself activities. Households are generally only regarded as enterprises, and hence included in statistical business registers, if their production is greater than that required for their own consumption, and the surplus is sold or traded in some way, e.g. surplus vegetables sold on a market stall. Households producing services for their own use should similarly be excluded from business registers, however, there are two special cases, which merit further comment:

#### **a) NACE group 70.2, Letting of own property.**

6.4 It is recommended to exclude household lessors from the register in order not to inflate the register unnecessarily, as their letting generally occurs on a small scale. For larger scale letting activities, an enterprise is generally established, and this should be included in the register. However, in the administrative source used, the difference between household and enterprise lessors may sometimes be difficult to define. In that case the NSI may be compelled to include also household lessors (or

part of them) in the register. It should also be noted that legal units are sometimes created to own property let to other legal units under the same control. Such legal units could be regarded as separate factors of production, and are considered further in Chapter 19.

**b) NACE section P, Private households employing domestic staff and undifferentiated production activities of households for own use.**

6.5 In NACE Rev1.1, section P is divided in 3 divisions: 95 Activities of households as employers of domestic staff, 96 Undifferentiated goods producing activities of private households for own use and 97 Undifferentiated services producing activities of private households for own use. Divisions 96 and 97 should be excluded from business registers.

6.6 Division 95 is strictly limited to the activities of households as employers of domestic personnel such as maids, cooks, waiters, butlers, gardeners, chauffeurs, caretakers, babysitters, tutors, secretaries, etc. Units classified to this division are generally out of scope for business surveys, but their inclusion in a statistical business register allows that register to be used in connection with employee or household based surveys such as the labour force survey and the population census, where employees of these units are likely to be included.

6.7 Division 95 is not explicitly excluded from the scope of statistical business registers in the Regulation, and in most Member States it is included, at least to some extent. Information on units in this division can generally be obtained from administrative sources concerning employers. A potential benefit of including units in Division 95 is that households employing persons are very often also involved in other ("real") businesses and having them in the register may help in keeping the two activities separate. The conclusion is that although the inclusion of Division 95 may be useful, it can be considered as optional, depending on the national circumstances.

6.8 Both section P and group 70.2 should be distinguished from the business activities of a natural person (a legal unit) entered on the register as the legal basis of an enterprise. If he/she also employs domestic staff, these people should not be included in the count of employees for this enterprise. Similarly, the amount of rent received by that person for his buildings must not be included in the "net turnover" variable for his/her enterprise, nor should the value of the buildings be included in the "net assets" variable for the enterprise, unless those buildings are actually used as a factor of production by the enterprise.

**6C - NACE Section Q**

6.9 Section Q of NACE (Extra-territorial organisations and bodies) includes international organisations, embassies and foreign government representations. These organisations can be split into two groups:

(i) Those whose sites are deemed to form part of the economic territory of another country (e.g. embassies, consulates, military bases), which should therefore be

included as units in the business register of that country. Such units would probably come under NACE section L in the controlling country. These units should not be included in the business register of the host country.

(ii) Those whose sites do not form part of the economic territory of another country. This group includes units such as international organisations (e.g. the United Nations and its agencies, European Communities, OECD, IMF, World Bank, etc.) which may not technically be part of the economic territory of the host country (according to the definition in the European System of Accounts (ESA95) paragraphs 2.05 - 2.06), but should be included in the business register of that country for the sake of completeness, as they would not appear in any other business register. National statistical institutions can then decide whether or not to include such units in their various outputs. This is in accordance with the register Regulation and allows the employees of this type of extra-territorial organisation to state the activity of their employer in censuses or studies.

## **6D - Inclusion of optional NACE sections**

6.10 The Regulation states that the inclusion of units, the main activity of which falls in the following NACE sections is optional:

- A - Agriculture, hunting and forestry
- B - Fishing
- L - Public administration and defence; compulsory social security

6.11 It is strongly recommended to include the optional sections in business registers (as most Member States do). This can sometimes be achieved by establishing a link to statistical or administrative registers of farms, government units, etc.

6.12 The inclusion of the optional sections greatly helps in treatment of enterprises that have significant activities both in optional and compulsory sections. This is very common, e.g. a farm can also have accommodation for tourists and the most important activity can vary from year to year. If an enterprise, whose principal activity falls within the optional sections, has a significant secondary activity corresponding to compulsory section, it must be included in the register, together with the local units where these activities are pursued.

6.13 The definition of statistical units in Section L is often a problem, further complicated by the way public sector units are defined in administrative sources, which varies from country to country. Although "a certain degree of autonomy in decision-making", as mentioned in the enterprise definition, can in many cases be questioned, it is recommended to treat government units as enterprises (as most Member States do). The delineation of public sector units will be considered further in a future chapter.

6.14 The treatment of government units has various implications. If they are treated as enterprises, they fall to the NACE section corresponding to their activity: schools to section M, hospitals to section N, etc. But if they are treated as local units of



government, section L, they could be even left outside the scope of the register, if L is not included in the register.

## **6E - Very small enterprises**

6.15 In principle, all enterprises should be included in the register, whatever their size. In the Regulation, however, it is stated, that "The extent to which small enterprises of no statistical importance to the Member States are to be included on the registers shall be decided under the procedure laid down in Article 9". This has not been decided, mainly due to the dependence of registers on administrative sources, in which various thresholds exist, possibly even in the same country.

6.16 The Regulation on statistical units states in the definition of local units that, save for certain exceptions, one or more persons must work, even if only part-time, in a local unit (and therefore also in an enterprise). It is deemed impossible to create an enterprise without a combination of factors of production involving a minimum amount of labour. Thus, an enterprise must provide employment, be it voluntary or paid. As an interim measure, it has been agreed that all enterprises employing at least one person half time must be included in the register. Using a lower threshold is naturally also in line with the Regulation.

6.17 However, even if nobody works even part-time in the enterprise, it should not automatically be excluded. Other information, especially turnover must be checked first. There may be reasons for the lack of employment, e.g. due to the arrangement of legal units and enterprises within an enterprise group (see treatment of complex enterprises in Chapter 19). The major exception to the employment rule concerns holding companies, which must be recorded as enterprises if they control more than one enterprise, even if they do not declare any employment.

6.18 One of the most problematic areas of under-coverage in registers concerns self-employed professionals (non-employers or one-person enterprises), who play a very important role in several NACE sections. Many countries have administrative sources covering at least some of these, e.g. social security sources, tax files on persons, files of Chambers of Crafts, lists of doctors, etc. Unfortunately not all national statistical offices have the legal right of access to such files. Nevertheless, attempts should be made to include these units in the statistical business register wherever possible.

6.19 There are also entities, which constitute an "organisational unit producing goods or services" and could, therefore, be regarded as enterprises and included in the registers, but they fail to meet the employment and turnover thresholds, and thus may not be included in the administrative sources used to maintain the register. These can be e.g. statistically insignificant non-profit institutions (significant NPIs should show at least voluntary employment). Ideally these units should be included in the register, but updating such units may be difficult and very costly. Possible solutions are to exclude them from the register, or to include them in the register but exclude them from surveys and analyses.

## **6F - Relation to the BR Regulation**

6.20 This section deals with the interpretation of Article 3 of the Regulation, scope of the register, and is therefore considered an interpretation of the Regulation.

**BUSINESS REGISTER  
RECOMMENDATIONS MANUAL**

**Chapter 7  
Legal Unit and Enterprise**

**Status: First Revision – March 2003**

## LEGAL UNIT AND ENTERPRISE

### Contents

- 7A – Introduction
- 7B – Definitions
- 7C – Conceptual Model of Business Registers
- 7D – Features of the Legal Unit
- 7E – Relationships between Legal Units
- 7F – Relationship between the Enterprise and the Legal Unit
- 7G – Taking Account of “Pseudo Legal Units”
- 7H – The Limits of Complex Enterprises
- 7I – Relation to the BR Regulation

### 7A - Introduction

7.1 The purpose of this section is first to explain the concepts of legal unit and enterprise. We shall also examine why, and in what form, several legal units may jointly form the legal basis of the same enterprise.

### 7B - Definitions

#### ***Legal units***

7.2 While confirming that they are not direct statistical units, the statistical units Regulation (Council Regulation (EEC) No 696/93 of 15 March 1993 on the statistical units for the observation and analysis of the production system in the Community) states that: "*legal units include:*

- *legal persons whose existence is recognised by law independently of the individuals or institutions which may own them or are members of them,*
- *natural persons who are engaged in an economic activity in their own right."*

7.3 This restriction concerning natural persons does not mean that those who are not engaged in an economic activity in their own right are not legal units, but that those legal units do not, in principle, concern business statistics.

7.4 In some countries (e.g. Germany) special legal forms exist where a group of natural persons can be treated as a legal person, though usually with certain restrictions. If these are economically active they should be included in statistical business registers as legal units.

#### ***Enterprise***

7.5 An enterprise is: "*the smallest combination of legal units that is an organisational unit producing goods or services which benefits from a certain degree of autonomy in decision-making, especially for the allocation of its current resources. An*

*enterprise carries out one or more activities at one or more locations."* The relationship between an enterprise and a legal unit is therefore defined as: *the enterprise corresponds either to a legal unit or to a combination of legal units.*

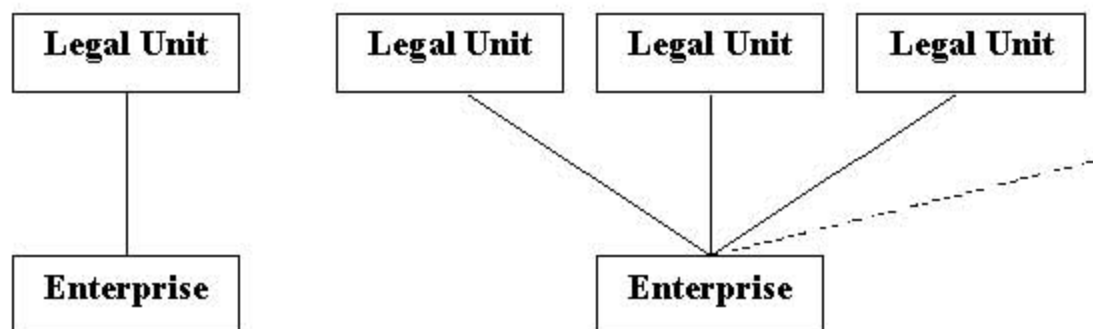
7.6 The Regulations on statistical units and registers (Council Regulation (EEC) No 2186/93 of 22 July 1993 on Community co-ordination in drawing up business registers for statistical purposes) describe this relationship in various ways:

- the enterprise is attached to one or more legal units;
- the legal unit is responsible for the enterprise;
- the legal unit is always the legal basis for the enterprise as a statistical unit.

7.7 These definitions need to be interpreted as follows: A legal unit is the principal legal basis for a single enterprise (on national territory), although exceptions may be allowed for enterprises in the public administration sector.

### 7C - Conceptual Model of Business Registers

7.8 Relationships between legal units and enterprises may be summarised by the following conceptual data model.



### 7D – Features of the Legal Unit

7.9 The legal unit is a unit that has legal personality, i.e. the law attributes rights and obligations to it.

- Right of ownership, permitting it to hold assets in its own name.
- Right to engage in activities in its own name and on its own behalf.
- Right to conclude contracts with third parties.
- Right to institute legal proceedings, i.e. to defend its interests.

7.10 It also has derived rights, such as:

- Right to dispose of its assets and resources.

7.11 These rights constituting legal personality are granted to natural and legal persons in all countries.

- The term natural person is used by the law and by many administrative authorities to denote a human being endowed with all the rights constituting legal personality.
- The term "legal person", which is used in the legislation of a number of countries, though not all, corresponds to all forms of legal construction organised by the constitution and laws of countries and endowed with rights and obligations characteristic of legal personality.

7.12 However, these rights and obligations constituting legal personality may be restricted in certain cases. Thus, a minor may own assets but may not dispose of them freely or conclude contracts direct with third parties. He may own an enterprise but may not operate it. Similarly, a natural person may not engage in just any activity. Some activities are regulated, and proof of professional competence may be required, for example.

7.13 Restrictions on the general rights associated with legal personality, and more particularly derived rights (free disposal of assets and resources) are more frequent in the case of legal persons. Thus, in the majority of countries, "non-profit institutions" are not permitted to redistribute their assets or gains to members.

7.14 These restrictions on rights do not deprive the legal unit of legal personality, nor do they call its existence into question. Conversely, legislation may impose additional obligations on certain legal units, or grant them specific rights.

7.15 Legislation may only grant rights or impose obligations in respect of legal units. That is why the statistician has to take account of legal units: it is they and they alone that are subject to statistical obligations.

7.16 The business statistician is even more concerned since, in order to pursue its activities, the statistical unit, the enterprise, which he defines as an organisational unit of production, has to bring together the factors of production and conclude contracts with third parties. Business activity therefore cannot exist without the legal basis of legal units.

7.17 Usually, an enterprise uses a single legal unit as its legal basis. But that is not always so: sometimes, several legal units combine to carry on a business activity. The usual forms that such associations take need to be analysed.

## **7E - Relationships between Legal Units**

7.18 Legal units may have different kinds of relationships with one another arising from or at least consistent with, their respective rights and obligations. The relations can be divided in two groups, financial relationships (ownership and control) and business relationships. Financial relationships should be recorded in statistical business registers where possible. Business relationships are generally outside the scope of such registers, but can be studied by surveys.

7.19 The list below is not exhaustive, but gives examples of some of the principal types of relationship, which affect the activities or autonomy of decision of the units

concerned. The names given to the different types of relationship have been selected for the sake of convenience; they are not characteristic and are relevant only to the text that follows.

### ***Business relationships***

7.20 The most important business relationships are subcontracting, outsourcing, strategic alliances, marketing partnerships, licensing agreement and franchising agreements. The basis for business relationships can vary from informal understandings to contractual agreements.

7.21 Informal relationship: A number of legal entities combine their activities to achieve a particular aim, but there is no structure to formalise this relationship, no contract signed. Commitments are not legally binding and the association can be dissolved at any time by any of the parties. Relationships such as this are difficult to identify. In some countries, however, the courts have acknowledged that certain persons engaged in joint activities are jointly and severally liable and may be treated in the same way as a partnership.

7.22 Membership relationship: for the most part, this is participation as a member of an association governed by regulations, whether or not the association has the status of a legal person. It is therefore a relationship between members or, if the association is a legal person, between the association and each of its members. On the whole, such relationships are relatively loose in that it is not too difficult for members to resign, and this does not imply any significant renunciation of their autonomy of decision or liability concerning the association's debts. The relationship may include the right to elect executive officers of the association and therefore give some control over it.

7.23 Contractual relationship: closer than the previous relationship; the commitments of the parties are determined by contract and are binding. Unilateral breach of the contract by one of the parties may give rise to claims for compensation.

### ***Financial relationships***

7.24 Ownership: this is a close relationship between a natural or legal person (the owning entity) and a legal person. It may be complete or partial. Freedom to dispose of this type of property is sometimes limited (shares in some companies may not be transferred).

7.25 Control relationship: this is another very close relationship, which is invariably between a natural or legal person exercising such control and a legal unit being controlled, which is always a legal person. The controlling unit exercises or has the right to exercise influence over the articles of association or over the activity, over the use of the resources or over the management or administration of the controlled unit. More detailed discussion on control can be found in Chapter 21 and in Commission Recommendation 96/280/EC of 3 April 1996 concerning the definition of small and medium-sized enterprises (Official Journal L 107, 30/04/1996).

7.26 It should be pointed out that, although they are very often associated with one another, the relationships of ownership (even where this involves a majority holding) and control are not equivalent. Each can exist independently of the other.

7.27 While 50% or greater ownership of a legal person usually includes the possibility of control, this is not necessarily the case, particularly if the statutory provisions determining its legal form provide for the forming of blocking minorities in respect of certain key decisions in the company's life (e.g. winding-up, merger with another company, increases in capital, changes in the articles of incorporation, changes of bonds into shares, etc.).

7.28 Control does not necessarily imply majority ownership (it sometimes coincides with considerably less than 50% of the shares for limited liability companies).

7.29 Finally, in that it may affect a legal unit's autonomy of decision, there is the relationship between creditor and debtor; a legal unit may be the debtor of another and, especially if this relationship is combined with others, it may in some cases (bond issues, bank loans, debts to suppliers) have a decisive effect on the autonomy of decision of the debtor unit.

7.30 The above relationships are not mutually exclusive; on the contrary, it is often necessary to combine them to take account of the actual relationships that exist between units. They lead to the grouping together of legal units through the relationships that link them.

## **7F - Relationship between the Enterprise and the Legal Unit**

7.31 If several legal units may associate with one another in order to carry on a joint business activity, the relationship between those associated legal units must be taken into account for recording the relationship between the enterprise and the legal units that are its legal basis.

7.32 Three forms of elementary combination may occur:

- Single enterprise -this is the general case, in which a single legal unit is the sole legal basis of the enterprise.
- Joint operation - a number of legal units jointly carry on an activity within an enterprise without being closely linked. No unit owns, still less controls, any of the others. Each legal unit is an equivalent legal basis. This form is relatively uncommon, and may not be present in all countries. Examples can include doctors, lawyers or similar professions. Joint ventures would not normally be included in this form, as these usually involve the creation of a separate legal unit.
- Complex enterprise - for the purpose of carrying on a business activity, a legal unit is associated with other legal units that it generally controls by a majority holding. That legal unit will then be regarded as the principal legal basis of the enterprise, the other legal units being termed secondary. The process of

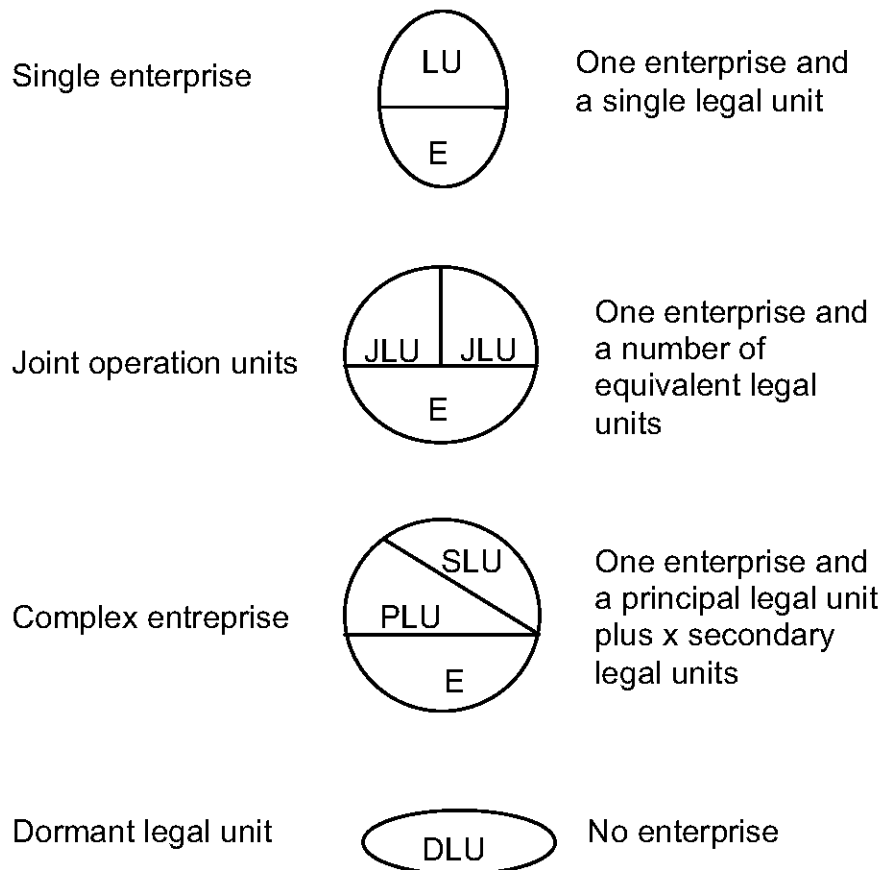


determining which legal units should be combined to form a complex enterprise is known as profiling. This topic is considered in detail in Chapter 19.

7.33 In addition to these three forms there is:

- The dormant legal unit - it is legally alive and has legal personality, but does not carry on any activity and has neither employment nor turnover.

7.34 These forms are represented diagrammatically below:



The symbols are abbreviations of the English names.

E	Enterprise
LU	Legal Unit
JLU	Joint legal unit
PLU	Principal legal unit
SLU	Secondary Legal Unit
DLU	Dormant Legal Unit

## 7G - Taking Account of "Pseudo Legal Units"

7.35 Let us return to the case of joint operation. A number of independent legal units are associated and have therefore established links between themselves.

7.36 Those links may have taken the form of the creation of a new, autonomous legal person. In that case, that new legal person is the legal basis for the enterprise, and the legal units associated within it disappear. They no longer have any direct relationship with the enterprise.

7.37 Links created between legal units involved in a joint operation may however be informal or contractual and need not give rise to the creation of a new legal unit with legal personality. Such links, however, create a quasi-corporate enterprise between the associates; although it has no legal personality, it is often treated as if it did by national regulations on taxation or company law, using the name joint venture, de facto company or de facto association.

7.38 For the maintenance of business registers for statistical purposes, it is recommended that a quasi-corporate enterprise formed between members of a joint operation be recorded in the same way as legal units, since it constitutes a "pseudo-legal unit".

7.39 The legal units associated with that quasi-corporate enterprise need not then be entered in the register unless, of course, they have another independent activity elsewhere. If these associated legal units are recorded as the legal basis for another enterprise, the relationship between them and the enterprise operated by the quasi-corporate enterprise will be recorded with a description of that relationship.

7.40 By taking account of these "pseudo-legal units", it is possible to set a simple rule for the maintenance of the register: at any given moment, an enterprise has one and only one principal legal basis: a legal unit or pseudo-legal unit.

## **7H - The Limits of Complex Enterprises**

7.41 The description of a complex enterprise as set out above could lead one to consider that all the legal units within one and the same group form a single enterprise.

7.42 This conclusion would, however, conflict with two elements of the definition of an enterprise. It corresponds to the smallest combination of legal units, while constituting an organisational unit producing goods or services which benefits from a certain degree of autonomy in decision-making, especially for the allocation of its current resources. In the light of this definition, the enterprise does not generally correspond to the whole group of legal units.

***Under what circumstances should a set of legal units controlled by the same legal unit not, therefore, be regarded as corresponding to a single enterprise?***

7.43 The explanatory note on the definition of enterprises in the Regulation on statistical units provides part of the answer:

*"The enterprise thus defined is an economic entity which can therefore, under certain circumstances, correspond to a grouping of several legal units. Some legal units, in fact, perform activities exclusively for other legal units and their existence can be*

*explained only by administrative factors (e.g. tax reasons), without them being of any economic significance. A large proportion of the legal units with no persons employed also belongs to this category. In many cases, the activities of these legal units should be seen as ancillary activities of the parent legal unit they serve, to which they belong and to which they must be attached to form an enterprise used for economic analysis."*

7.44 This answer can be compared with the actual definition: an enterprise is "*an organisational unit producing [goods or services]*". It thereby combines factors of production, and this combination has to be complete in order to enable it to produce.

7.45 The statistician's aim is to establish full accounts for the enterprise, i.e. the complete sequence of accounts, within the national accounts framework (ESA 95).

7.46 In most cases all the data to be collected are included in the accounts of the legal unit responsible for the enterprise. There are, however, exceptions. For example, some of the enterprise's incidental expenses or income may not, for one reason or another, be covered by the accounts of the legal unit chiefly responsible for the enterprise. The latter's accounts will always include the turnover corresponding to sales of the enterprise's production, but this will not always apply to expenditure relating to production factors implemented by the enterprise.

7.47 Each time recording of the financial flows relating to the various combined factors of production within an enterprise is spread across the accounts of several legal units, these must be consolidated accordingly in order to reconstitute meaningful accounts for the enterprise.

7.48 Thus, if a legal unit has created secondary legal units that it controls, to serve as the legal bases for certain factors of production, they should be deemed to act as joint legal bases for a single enterprise.

7.49 This is often the case with legal units that set up a subsidiary whose only role is to act as the legal employer of some of their staff. Another typical example, in some countries, is public-works enterprises that systematically create a subsidiary for the purchase of their equipment, since they can thus obtain better financing terms from the banks.

7.50 The rules for combining legal units into one enterprise are considered in more detail in chapter 19.

## **7I - Relation to the BR Regulation**

7.51 This chapter describes the concepts of legal unit and enterprises, and the relationships between these units. It is not therefore a direct interpretation of the Regulation, but is intended to assist with the implementation of the provisions of the Regulation relevant to these units.

# **BUSINESS REGISTER RECOMMENDATIONS MANUAL**

## **Chapter 8 Local Units**

**Status: First Revision – March 2003**

## LOCAL UNITS IN BUSINESS REGISTERS

### Contents

8A – Introduction
8B – Local Units – The Limiting Case
8C – Major Sites
8D – External Sourcing of Ancillary Services
8E – Activities of Workers under Exclusive Contracts
8F – Relationship with Other Units
8G – Relation to the BR Regulation
Annex – Local Unit Guidelines for Specific Activities

### 8A - Introduction

8.1 The Council Regulation on Community co-ordination in drawing up business registers for statistical purposes stipulates that local units must be recorded in business registers. Local units are defined by the Council Regulation on statistical units:

*"The local unit is an enterprise or part thereof (e.g. a workshop, factory, warehouse, office, mine or depot) situated in a geographically identified place. At or from this place economic activity is carried out for which - save for certain exceptions - one or more persons work (even if only part-time) for one and the same enterprise."*

8.2 The Regulation supplements this definition by four explanatory notes which offer criteria for deciding in cases where there is doubt regarding the nature of a local unit in certain locations where business activity is carried on and thus regarding the obligation to include them in the register. The first is the most important:

(i) *"If a person works in more than one place (maintenance or surveillance) or at home, the local unit is taken to be [the] place from which instructions emanate or from where the work is organised. It must be possible to specify the employment attached to any local unit. However, all legal units that serve as the legal basis for an enterprise or a part thereof must have a local unit, which is the registered office, even if nobody works there. Moreover, a local unit can comprise only ancillary activities."*

(ii) *"A geographically identified place must be interpreted on a strict basis: two units belonging to the same enterprise at different locations (even within the smallest administrative unit of the Member State) must be regarded as two local units. However, a single local unit may be spread over several adjacent administrative areas, in which case, by convention, the postal address is the determining factor."*

(iii) *"The boundaries of the unit are determined by the boundaries of the site, which means for example that a public highway running through does not interrupt the continuity of the boundaries. The definition is similar to the one in paragraph 101 of the introduction to ISIC Rev.3 in that it concerns localisation in the strict sense of the*

*term, but differs from the definition in paragraph 102 in that this strict sense may not vary according to the statistics under consideration. In addition, the criterion of persons working in the unit is normally applied."*

*(iv) "The ESA-REG (the regional application of the ESA) uses the same definition of local unit for regional accounts purposes."*

8.3 The purpose of this chapter is to ensure that bodies maintaining statistical business registers in European Union countries analyse the commonest borderline cases in a uniform manner. It does not deal with questions of the demography of local units.

## **8B - Local Units - The Limiting Case**

8.4 A local unit must normally have one or more persons working at least part-time to be included in a statistical business register. An exception to this rule is where the registered offices of legal units that act as the legal basis for the enterprise and have to be registered as local units even if they are merely domicile addresses with no real activity, and no-one working there. This exception means that the register can, in theory, be maintained by recording addresses of local units only, the addresses of legal units and enterprises being those of their local unit which is the registered office. In reality, other addresses may also need to be stored, for example, mailing addresses may not coincide with any of the local unit addresses within the enterprise if forms are completed by an accountant or a group head office.

8.5 The fact that local units may not be recorded for all locations where an enterprise carries on its activities should not lead to the conclusion that some activities of such an enterprise are not covered by any local units. Although a local unit corresponds to a place where activity is carried on, it is not confined to the activity carried on at that location but includes all activities carried on from that location.

8.6 Thus, for example, an electricity sub-station belonging to an electricity distribution company is not a local unit if it is not allocated any permanent staff. However, that sub-station is run by a regional agency employing permanent staff who check the sub-station and may go there to work if necessary. The local unit corresponding to the regional agency includes not only the building where the agency is established but also all unstaffed locations whose operation is controlled by the agency, thus including the sub-station.

8.7 In this situation a survey of investment per local unit will show up all fixed capital investments by enterprises, even those which are not situated at a location to which the enterprise has staff permanently allocated.

8.8 The definition of a local unit takes good account of the problems encountered in the case of activities that are not carried on from established premises.

8.9 Such activities may take place at the customer's address (e.g. door-to-door sales, visits by doctors), at fairs and markets and at working sites. The rule is that these locations where the enterprise carries on its activities on a transient basis are

not local units. Statistically, such activities are treated as if they were carried on at the location from which they are organised.

8.10 However, there may be some demarcation problems in the case of major, long-term sites and activities carried on at the address of a customer under a long-term contract (office cleaning, surveillance). In such cases it is useful to consider some basic pre-requisites for a local unit to exist:

(i) A local unit should be self-contained within a permanent or semi-permanent structure. This means that it should be possible to identify the physical location of the local unit at any time of the day or night.

(ii) A local unit has to be capable of receiving deliveries and of storing products, materials or stock. This implies that the local unit should have a postal address.

### **8C - Major Sites**

8.11 Major long-term sites constitute an exception. It is deemed desirable to record them as local units if they meet the following three criteria:

- The planned duration of the site is in excess of two years at the time that the site is opened;
- The enterprise employs more than 50 people at the site;
- Recruitment and administration of a significant proportion of the labour force is done locally.

8.12 In practice, these criteria can be adapted by each country to correspond to the criteria actually used by the administrative sources which normally supply the information needed to detect local units for the purpose of maintaining the register.

### **8D - External Sourcing of Ancillary Services**

8.13 The question of activities carried on at the address of a customer under a long-term contract is rather similar. For example, it is common for an external enterprise to be put in charge of a staff canteen or restaurant, or a school canteen, or cleaning or security services.

8.14 Should a separate local unit be recognised and hence recorded for each enterprise working on the premises of a customer enterprise? The question is important in view of the present trend in most countries towards external sourcing of a number of ancillary services.

8.15 In the case where a legal unit provides ancillary services on a subcontracting basis for a parent legal unit, the general view taken for statistical purposes is that only one enterprise exists, unless the services are also provided for other, unrelated units. In this case there is only one local unit even if paid employees of several different legal units work there.

8.16 In the case of genuine external sourcing, i.e. where the enterprise providing services on a subcontracting basis is not controlled by the contracting enterprise, there are two possibilities:

(i) The service contract is a contract for a specified long term (in excess of 2 years) providing for the permanent allocation of employees of the subcontractor to premises placed at his disposal. This is often the case with restaurants and canteens put out to contract. The subcontractor will then be deemed to have his own local unit on the premises allocated to him.

(ii) The service contract is - either for an unspecified period, or - for a specified short term (less than two years) even if it is renewable, or - it is long term but makes no provision for the subcontractor to be provided with premises which he is responsible for running. In these three cases the subcontractor's activity will be treated as a site activity. This means that no local unit will normally be recorded. The subcontractor's activities are deemed to be carried on by the local unit (of the subcontracting enterprise) in charge of administration for the workers used at those sites.

## **8E - Activities of Workers under Exclusive Contracts**

8.17 There are many activities that involve the services of workers under exclusive contracts: commercial representatives, travelling salesmen, insurance agents. Such workers may or may not be treated as employees of the enterprise, depending on the nature of the contract binding them to the enterprise. The decision to be taken on this matter, which is an important one for maintenance of the register, must be consistent with the choices made for employment statistics.

8.18 In cases where such workers are to be treated as employees of the enterprise, they will carry on activities of the enterprise away from established premises and must be included in the workforce employed by the local unit which gives them their instructions and organises their work in the same way as employees working at home.

8.19 On the other hand, where these workers cannot be treated as employees, each of them must be deemed to constitute an enterprise with a local unit normally situated at the worker's own home.

## **8F - Relationship with Other Units**

8.20 The local unit is defined in terms of the enterprise, i.e. *"an enterprise or part thereof ..... situated in a geographically identified place"*. It is therefore necessary to determine the enterprise before its local units can be delimited. Local units can have more than one activity, and can, for statistical purposes, be seen as one or more local kind of activity units (LKAUs). The LKAU is not required to be included in statistical business registers according to the Regulation, but is recorded in the business registers of several Member States. The main reasons for including the LKAU in a statistical business register are that it is a valuable tool in the production of regional statistics, important for national accounts and that secondary activities



can be better represented in business statistics. It should be noted however that the LKAU can still consist of more than one activity, particularly where data on the activities are not available separately.

8.21 To estimate data on particular activities at a specific site it may be necessary to use the local unit of homogenous production (LUHP). This unit is purely a statistical construct and is often unobservable in practice, therefore would not normally be recorded in a statistical business register.

## **8G - Relation to the BR Regulation**

8.22 This section concerns the interpretation of a compulsory statistical unit, the local unit, which has to be recorded according to the Regulation, and therefore it is considered an interpretation of the Regulation. However, as the detailed rules for defining local units go beyond those given in the definition of statistical units, exceptions to these can be made due to unavailability of the necessary information, providing the regional knowledge based on information on local units is maintained.

## **ANNEX - Local Unit Guidelines for Specific Activities**

8.23 Specific guidelines are given below for the identification of local units depending on type of activity. These guidelines are presented according to the highest level (Sections) of the NACE activity classification, with the exception of Section I which is broken down further due to the nature of the activities involved.

### **Section A - Agriculture, hunting and forestry**

8.24 Agricultural and hunting activities can, by nature, take place over wide areas and may not be confined to any geographically distinct location. The one local unit is generally located at the address of the farm building or the place from which the farming or hunting activities are directed.

8.25 Activities within group 01.4 "Agricultural and animal husbandry service activities, except veterinary activities" are carried out on behalf of third parties on the land of customer enterprises. Typically, these are site activities, which are generally of short duration. These sites are not recorded as separate local units.

8.26 Forestry and logging work generally takes place over large areas and covers tree planting, maintenance and felling for commercial purposes. These activities are often directed from an office located in the forest or nearby. This office is then used as the address of the local unit. If the operation in question covers plots of forest which are not adjoining but are managed from that address, all these lands must be regarded as a single local unit.

8.27 Like ancillary agricultural services, "Forestry and logging related service activities" activities in class 02.02 are site activities on behalf of third parties and are treated as such; they should not be regarded as giving rise to a local unit unless the contract relates to a period of at least two years, in which case the site specified in the contract should be regarded as a local unit of the enterprise conducting forestry activities on behalf of third parties.

### **Section B - Fishing**

8.28 Fish farms and hatcheries are covered by the definition of local units. Fishing boats pose particular problems, as do other commercial vessels. Under social and maritime legislation, each vessel is often treated as an establishment of the ship owner. However, for the purpose of maintaining the register, the recommendation is that they be regarded as a working tool used for itinerant activities from the office of the ship owner, generally situated in the port of registry of the vessels. In the case of small-scale fishing, the local unit where the enterprise is established will often be the home of the fisherman owner.

### **Section C - Mining and quarrying**

8.29 Most mining and quarrying activities concern mineral deposits requiring large amounts of capital investment for their exploitation. An ore is an exhaustible asset and reserves of such a product must be sufficient to justify the capital outlay and the use of labour over a long period. The mine and the point where the ore is delivered correspond to the definition of the local unit.

8.30 However, some extractive activities do not entail the installation of permanent fixed equipment and can be treated on the same lines as working sites.

8.31 Some large deposits of peat are worked over long periods and can be appropriately defined as local units. Small deposits are often worked for short periods and in that way are like forests managed for comparable periods by enterprises working on behalf of third parties. Such deposits cannot be regarded as local units unless the extractive activities last for at least two years, or are expected to do so.

8.32 A group of oil wells worked by the same enterprise at the same deposit, on land or off shore, is conventionally regarded as forming a single local unit. The same applies to a group of prospecting sites.

## **Section D - Manufacturing**

8.33 Manufacturing is generally a process carried out at a fixed site, therefore the definition of a manufacturing local unit is normally clear. One case where complications may arise is where a manufacturing unit has some retail activity, e.g. a factory shop, selling products directly to the public. In general it is better to have a separate local unit for the retailing part if possible, particularly if the retail part occupies a clearly identifiable part of the main site, and/or sells products bought in from other sources.

## **Section E - Electricity, gas and water supply**

8.34 Activities relating to the production of these services take place in local units similar to those found in manufacturing industries, and are covered by the definition of the local unit. In contrast, in the case of the operation and maintenance of distribution networks - high voltage lines, sub-stations, gas and water pipelines, pumping stations, etc. - according to the definition of a local unit, installations which do not use any permanent staff (even part-time) are not regarded as autonomous local units but are incorporated in the local units from which they are controlled.

## **Section F - Construction**

8.35 Activities under this section of NACE employ large numbers of people, and a strict interpretation of the definition of the local unit would lead to the inclusion of all construction sites (building or civil engineering). However, considering all construction sites as local units would result in a vast register of very short-lived units

(from less than a month, for example, in the case of most repair work, to about a year for most housing or factory building sites).

8.36 Although it is sometimes necessary to have information on such construction sites, even if they are short-term, or on the labour force employed at such sites, it does not seem appropriate to incorporate them in the central register.

8.37 On the other hand, it is felt that large, long-term sites should be incorporated in the register as local units. Their labour force - and particularly unskilled labour - is recruited on a temporary basis for the site in question.

8.38 The distinction between large sites and ordinary sites not to be recorded in the register as local units can be drawn in terms of both duration and cost of the work. The general criterion for working sites should be used for these construction sites.

8.39 For most large, long-term construction sites the location of the local unit does not present any problems since it is then the site itself. For "linear" projects such as large-scale road or bridge building or the laying of pipelines, the choice of address of the local unit must also be practical if it is arbitrary. One should then choose the postal address of the office (generally a structural engineering firm) in charge of the day-to-day organisation of the work on the site (from recruitment of casual workers to planning the delivery of materials and including co-ordinating the various aspects of the project). Its office is liable to move as the site progresses; such a move is comparable in some ways to a change of location of the site; a choice then needs to be made: either amend the address of the local unit or record the disappearance of a local unit followed by creation of a new one. In view of the rules on continuity of local units defined in Chapter 13, this move of the centre of gravity of a site will be treated as a change in the address of the local unit.

## **Section G - Wholesale and retail trade; repair of motor vehicles, motorcycles and personal and household goods**

8.40 The definition of a local unit is set out in terms of manufacturing industry. There are no specific references to a "shop" or "store". A retail store is defined in the Commission Regulation concerning the definitions of characteristics for structural business statistics in the following way: *Stores are defined as fixed sales premises, which the customers enter to make their purchases.* The term "shop", which is an equally common usage, can be regarded as defined identically.

8.41 Clearly, there are many local units in retailing which are not stores. These are discussed below. However, it is desirable that, where relevant, retail local units and stores are precisely equivalent. In almost all cases, this will automatically be so.

8.42 Two aspects of definition are worth noting. First, there is the issue of "shops-within-shops" - the letting out of space within, say, a department store to individual retailers. Here, while to a casual customer there may appear to be only one shop, the definition of a local unit as a part of an enterprise implies that there are a number of local units and an equal number of shops.

8.43 A more difficult case is where there are two geographically distinct, but reasonably close, outlets of a retailer. If the two outlets have different addresses, they should be regarded as two stores and two local units (even if employment has to be allocated in a slightly arbitrary manner between them). If the outlets share the same address, it is desirable to regard them in general as representing a single store and a single local unit, although there may be special circumstances, where the lack of any internal routes from one part to another of the combined store suggests they should be regarded as two distinct stores.

8.44 The Structural Business Statistics Regulation seeks information (in addition to the number of local units) on "Number of retail stores (17 32 0)" and "Number of fixed market stands and/or stalls (17 34 0)" for retail and repair, which links closely to the concept of local units.

8.45 There are also potential problems of interpretation where retailing is not carried out via a traditional store as defined above. Various forms of distance selling, ranging from mail order to the use of the Internet, are relevant. These are relatively straightforward – the major activities will be carried out centrally on one or more sites, which will correspond to local units. Individuals employed by these enterprises, essentially to deliver goods or possibly to co-ordinate orders, and operating from their own homes should not be regarded as defining separate local units. A centralised distance selling operation may have more than one local unit, however, if various aspects – such as taking orders, dealing with payments and despatching goods - are dealt with at separate locations.

8.46 There are also a range of problems relating to selling by stalls, either fixed or mobile, and selling by fully itinerant traders. Some aspects of this are clear. A fully itinerant trader, travelling from place to place – perhaps in a specially adapted vehicle – will represent one local unit, generally located at their home or, if it exists, their business address. At the other extreme an enterprise owning fixed stalls operating at distinct markets or locations will represent a local unit per stall and one also for the business address of the enterprise. In the case where an enterprise operates a number of mobile stalls or vehicles that by definition are not permanently sited at any one location, these activities should be covered by a single local unit at the enterprise address.

8.47 Different issues are relevant in wholesaling. Here the main problem is the extent to which it is possible to seek a reasonable range of information for individual local units. The contrast with retailing is clear. For retailing, it is almost always possible to seek information on turnover of a local unit: for wholesaling – where the local unit may be a distribution depot – it may not be possible to define this basic variable.

8.48 In some countries, the registration of local units for activities in group 51 "wholesale agents" presents some difficult practical problems. Some enterprises may in fact have a large volume of activity conducted by telephone by the head of the enterprise from his home address, but are legally obliged to register at a different address if the building in which they live is not licensed for commercial activities. Which address should be used in this case? It is recommended that the address of the local unit should be deemed to be the one supplied by the enterprise for value

added tax purposes, since the tax authorities in some Member States refuse to take account of addresses used only as letter boxes. If the business is not registered for value added tax, it is possible to take the address on the letter heading as the address of the local unit.

## **Section H - Hotels and restaurants**

8.49 Hotels and restaurants do not generally present any problems. Each hotel, restaurant, bar or similar site generally conforms to the definition of a local unit. Several restaurants at the same address owned by the same enterprise should be combined as a single local unit.

8.50 The problems in defining local units are often similar to those in distributive trade and the two activities operate often in parallel: souvenir shops are very common in hotels and on the other hand restaurants are very common in supermarkets and department stores.

8.51 Mobile stalls offering cooked or otherwise prepared food, to take away or to be consumed at the stall, are quite similar to NACE class 52.62 (retail sale via stalls and markets), and the same rules should be applied.

## **Section I - Transport, storage and warehousing and communications - Transport by rail**

8.52 This section contains various diverse activities that pose a number of problems in relation to the delineation of local units. There are few general rules for this Section so the different activities are treated in turn below.

### **• Group 60.1 Transport via railways**

8.53 Rail transport enterprises pose complex problems for the definition of local units. Their activities may fall into three separate NACE headings:

- 60.1 Transport via railways
- 63.11 Cargo handling
- 63.2 Other supporting transport activities

8.54 However, if the enterprise performs all these functions it has only one activity, namely rail transport (class 60.10), all its other activities being ancillary.

8.55 Often, the various activities connected with the operation of a railway company do not take place in specific buildings or structures but outdoors - goods yard, marshalling yard, track and signals maintenance.

8.56 In view of these various factors, any location where a railway employee regularly works is a local unit.

8.57 The continuous maintenance of track and signals presents problems similar to those already discussed in connection with local units involved in the operation of energy distribution networks. It is desirable that not all structures on a section of railway - such as shelters used by plate layers - should be regarded as local units. Nor is there any advantage from the statistical viewpoint in regarding each signal box as a local unit. In the case of "linear" work on railway tracks, the address of the smallest unit responsible for managing a function such as continuous track maintenance or signalling on a particular section should be deemed to be the local unit.

8.58 Another possibility is to define the local unit of a railway company as all the infrastructures situated on a section of track corresponding to a certain administrative district (e.g. NUTS4).

8.59 If several enterprises carry on their activities at the same station, whether or not the activities relate to railways, then obviously each enterprise has a local unit at that location. For example, a stall in a station booking hall, rented to a retailer by the railway company, is a local unit of the retailer (or enterprise, if the stall is the only one belonging to the retailer in question).

- **Group 60.2 - Other land transport**

8.60 According to a strict interpretation, the definition of a local unit would mean that taxi ranks and bus stations ought to be deemed to be local units of the enterprises using them. This strict interpretation may often be impractical, and generally a local unit should be deemed to exist wherever the road transport service operator has a building for administrative or other uses (depot) in connection with that service.

- **Group 60.3 - Transport via pipelines**

8.61 The local units will generally be the sites from which pipelines are controlled, monitored and/or maintained. This is similar in principle to the guidelines for railways set out above.

- **Division 61 – Water transport**

8.62 Vessels - barges, lighters and other inland waterway, coastal or ocean-going vessels - will not be deemed to be autonomous local units but equipment of the local unit of their ship owner in their usual port of mooring, which may be other than their home port if a flag of convenience is being used.

- **Division 62 - Air transport**

8.63 The guidelines for water transport above should also be applied to air transport. Aircraft are not considered to be local units.

- **Division 63 Supporting and auxiliary transport activities; activities of travel agencies**

8.64 For most of this Division the delineation of local units is generally straightforward. There are, however, two issues relating to group 63.2 that need further comment:

(i) In the case of navigable waterways, where locks may or may not be manned, local units should be defined in a similar way to "linear" railway functions, i.e. a local unit corresponds to the section of navigable waterway attached to the smallest administrative unit.

(ii) Permanently manned lightships and lighthouses are increasingly rare, but where they exist they must be deemed to be local units of the enterprise (legal entity) responsible for their maintenance.

- **Division 64 - Post and Telecommunications**

8.65 Post delivery personnel, couriers and telecommunications equipment repair engineers should be regarded as employees of the sites from which they receive their orders.

8.66 Post offices are generally local units in their own right, except where they form a minor part of another business (e.g. a retail shop), when they are considered to be merely a part of that local unit, which should be classified to its principal activity.

## **Section J - Financial Intermediation**

8.67 Local units in Section J are generally well defined. The case of insurance agents is dealt with in paragraphs 8.17 - 8.19 above.

## **Section K - Real Estate, Renting and Business Activities**

8.68 A real estate or property rental enterprise may own a large number of properties. These would not normally be treated as separate local units unless the enterprise employs people on a permanent basis at the site, such as a concierge or security staff. Casual or occasional services such as cleaning or maintenance are not normally sufficient to merit separate local units.

8.69 Most business services involve clearly defined local units, though cleaning, and employment agencies are two activities that can be problematic. In terms of cleaning, if a cleaning enterprise has a permanent presence at the site of another enterprise, and a clearly defined physical location within that site (e.g. a separate room for its exclusive use), this should be treated as a local unit. It is, however, impractical to consider a site where a cleaner is present for only one or two hours per week to be a local unit.

8.70 In general, staff employed by an employment agency, working under contract at the site of another enterprise, do not constitute a separate local unit of the employment agency. They should be counted under the site from which they receive their orders.



## **Section L - Public Administration and Defence; Compulsory Social Security**

8.71 Local units are usually much easier to identify and delineate than enterprises in Section L. There are however 2 cases requiring special comment:

(i) Embassies, consulates, military bases and similar sites in other countries should be counted as local units of the appropriate enterprise in the controlling country, when they are part of the economic territory of that country. They should not be included in the statistical business register of the "host" country. For example, the French embassy in Madrid should be counted as a local unit of the French administration, and should not be present in the Spanish business register. See also Chapter 6 and Section Q below. Such local units that are part of the economic territory, but not the geographical territory of a country should be identified in the statistical business register of that country by means of a special geographic code.

(ii) The activities of an organisation such as a local council may be spread over several buildings within a town. These buildings may not always occupy a continuous block of land, and so following the definition in paragraphs 8.1 - 8.2 above in its strict sense would often require them to be identified as separate local units. In practice this separation might not be meaningful in either the statistical or real world contexts, so a degree of flexibility and pragmatism is needed. A good general rule would be to treat such cases as a single local unit unless the enterprise requested otherwise.

## **Section M - Education**

8.72 The second case under Section L above is also likely to apply to Section M, particularly where Multi-site schools / universities or similar education institutions are concerned. It may not be very meaningful to record separate units where a department of a university is split between two buildings in the same town.

## **Section N - Health and Social Work**

8.73 The notes under Sections L and M above also apply where a hospital is split over several locations within a relatively small geographical area, particularly if staff move between sites on a daily basis. Separate local units are only generally justified where a site has a certain degree of autonomy, for example a site containing a distinct department or function that is at least semi-autonomous from the remainder of the hospital.

## **Section O - Other Community, Social and Personal Service Activities**

8.74 In general local units in this section are fairly straightforward to identify and delimit. The only areas likely to cause problems are those concerning mobile services, for example a hairdresser who visits clients in their own homes, or a

travelling fair. In these cases the rules concerning mobile retail outlets set out in Section G above should be applied.

## **Section P - Private Households Employing Domestic Staff and Undifferentiated Production Activities of Households for Own Use**

8.75 See paragraphs 6.5 - 6.8 regarding the coverage of statistical business registers. Local units classified to this Section of NACE are likely to be fairly straightforward to define and delimit, though care must be taken to avoid including employees of any legal units owned by members of the household. These must be kept separate, and classified to their main activity.

## **Section Q - Extra-territorial Organisations and Bodies**

8.76 See paragraph 6.9 regarding the coverage of statistical business registers. Units in Section Q can be split into two groups:

- (i) Those whose sites are deemed to form part of the economic territory of another country (e.g. embassies, consulates, military bases). These sites should be included as local units in the business register of that country, and identified by means of a special geographical code. See Section L above.
- (ii) Those whose sites do not form part of the economic territory of another country. This group includes units such as international organisations (e.g. the United Nations and its agencies, European Communities, OECD, IMF, World Bank, etc.). In this case, the local unit is generally easy to identify, though the guidelines in Section L above regarding multiple buildings in close proximity are also likely to be relevant here. Data collection may be an issue as extra-territorial organisations would normally be exempt from compulsory surveys.

**BUSINESS REGISTER  
RECOMMENDATIONS MANUAL**

**Chapter 9  
Access to the Register**

**Status : First Revision – January 2003**

## **ACCESS TO THE REGISTER**

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### **9A - Introduction**

9.1 Chapter 3 analyses the uses for which statistical institutes must develop business registers, and how they can be a useful means of satisfying the growing needs of a large number of economic operators. All users, by definition, require access to register data. Some just need aggregate data, which, as long as it meets national data confidentiality requirements, can usually be made available. Other users, such as administrative authorities, public bodies, enterprises, researchers etc. may require access to more detailed data, often micro-data relating to individual units.

9.2 The response by national statistical institutes to the demand for micro-data differs profoundly from country to country. In some countries a legal or administrative register meets this demand so well that demands for access to micro-data from the statistical business register are minimal, whereas in other countries, the statistical business register may also be the main administrative register, so demands for access are much greater.

9.3 The divergences in access to data from national statistical business registers are due in part to differences in national laws and regulations on statistical activities and on the protection of individual data recorded in the files. They may also be due to different practices relating to confidentiality or to formal or informal codes of practice developed by statistical offices.

9.4 Thus, some countries treat all information on the register as strictly confidential and reserved for use within their statistical institutes or, in some cases, within certain other government departments. Others publish some information about individual enterprises, but only after obtaining the agreement of the units concerned. Finally, others do not impose any legal constraints on the publication of certain register information, which is deemed to be public, and therefore make it available.

9.5 The main reason for these differences is that some countries have specific regulations on business registers that state that one of their functions is to serve all economic operators. Even where such regulations entrust the maintenance of these registers to statistical institutes, they do not define them as statistical registers. They are therefore not covered by general rules on statistical secrecy. This is particularly justifiable where the reporting procedures under which the register data are compiled and updated are general legal obligations rather than statistical requirements.

9.6 Where such legislation does not exist, or there is legislation stating that the business register is purely statistical, rules regarding confidentiality of data are usually based on the general policy for release of data by the statistical office, or the rules of the administrative sources supplying the register.

## **9B - Limits of Access**

9.7 Two principles may serve as a guide;

(i) A statistical institute must not divulge data on individual units if the data collection provisions, or the units themselves deem that information to be confidential.

(ii) Any information on businesses that is required to be published by law, e.g. the accounts of certain types of businesses, is not, by its nature, confidential.

9.8 There is therefore no ethical principle preventing statistical institutes from collecting such information, organising it into a databank and helping to circulate it (though this may be impractical or illegal). Whether there is any advantage in doing this is another question.

9.9 If we apply these principles to business registers, it is apparent that equal access cannot be provided for all the information contained in the register.

9.10 Information on legal units - their name, address, legal form, and sphere of activity - may be deemed non-confidential where the law requires them to publish it. The same is often true, though not necessarily in all countries, of the locations where these legal units carry on their activities.

9.11 On the other hand, the grouping of legal units into enterprises and enterprise groups, and any splitting of these units for data reporting purposes, should normally be considered as confidential, as such structures are constructed purely for statistical purposes.

9.12 In some countries the legal obligation to disclose business accounts etc. only applies to certain businesses, e.g. those incorporated as limited companies. In this case, the corresponding information relating to enterprises controlled by natural persons (sole-proprietors and some forms of partnerships) must remain confidential.

9.13 Disclosure of register information about the size and principal activity of units can be problematic, particularly where this information has been gathered as a result of a statistical survey. In legal terms, the possibility of disclosing a size indicator or activity code updated from survey results depends on an interpretation of the statistical secrecy rules. If those responsible for a statistical business register consider it appropriate for such information to be divulged, they must negotiate an agreement on this question. In countries where such negotiations have been successfully conducted, the outcome has been that enterprises agree that:

- the disclosure of a unit size indicator is unlikely to embarrass enterprises, provided that it is not premature. In practice, it should be updated only once a year and should reflect a situation, which is at least six months old;
- the disclosure of a code representing the principal activity of units causes no harm to enterprises provided it is correct. Thus, it can be updated from the results of statistical surveys. However, it should be clearly stated in the survey form that replies from enterprises may be used to update that information, and each enterprise should be given the option of refusing to allow such use and hence the disclosure of its activity code.

## **9C - Desirability of Access**

9.14 Although statistical ethics do not necessarily prevent access to statistical business registers, they may impose certain restrictions, therefore the desirability of such access by various groups of users should be considered.

9.15 In many countries there is a demand for access to a central reference register of businesses. In several countries of the European Union this demand is at least partly met by non-statistical institutions responsible for maintaining registers of legal units. In this case it is neither necessary nor even desirable for statistical institutes to enter into competition with those bodies, especially where they provide an essential source of information for updating the statistical business register.

9.16 One key point on which statisticians disagree is the advisability of access to the principal activity code of enterprises, determined by statisticians. This information is often valuable to users, and statistical institutions are often better placed than other organisations to determine accurate codes. Access to classification data can in fact, if not in law, give such data a wider reference or policy role which could entail fiscal, social or financial consequences for enterprises. If such micro-level data is made available, the users should be reminded that the classification has been determined for statistical purposes, and may not therefore meet the classification criteria for other purposes. This situation can have both negative and positive effects. On the negative side, enterprises may tend to bias their replies to surveys in order to obtain an activity code, which they regard as more favourable to them, whereas on the positive side, the enterprise's interest in this variable ensures a reaction if there is any error in the code given. Obviously this can result in disputes, as the body maintaining the registers has to justify its interpretation of the classification.

9.17 Increased access to the register can help to improve its quality, but there is also a danger of being caught up in commercial considerations, giving preference to the needs of paying customers to the detriment of those of statisticians.

9.18 The quality criteria used by commercial clients are not, however, always in conflict with those of statisticians. Commercial uses of register data, particularly relating to mailing details, can lead indirectly to improvements in register quality at very low cost. Feedback from customers can help with the early detection of address changes and site closures.

## **9D - Relation to the BR Regulation**

9.19 This chapter explores the issues surrounding access to business register data and data confidentiality. It is not, therefore, considered to be an interpretation of the Regulation.

**BUSINESS REGISTER  
RECOMMENDATIONS MANUAL**

**Chapter 10  
Quality Policy**

**Status: First Revision – March 2003**



## **QUALITY POLICY**

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### **10A - Introduction**

10.1 Users of statistical business registers want those registers to be "of good quality". It is therefore important to establish what level of quality is required, and to have a policy to monitor, and where necessary, to improve the quality of the register. This approach is consistent with the definition of quality in the ISO standard 9000:2000, which states that quality is the "degree to which a set of inherent characteristics fulfils requirements". Therefore the quality of statistical business registers can be determined by the extent to which they meet user needs.

10.2 This definition of quality based on user needs may conflict to some extent with the traditional view that the quality of a business register is determined by how closely its contents reflect reality. In certain cases, demands for statistical consistency, e.g. between short-term and structural indicators, may require temporary distortions of reality, such as the postponement of certain updates until a specific point in the annual statistical cycle. Users may see this as improving rather than diminishing the quality of the register.

#### ***Which Users?***

10.3 There are many actual and potential users of statistical business registers. The different uses of register data are explored in Chapter 3. Each user is likely to have different needs and priorities. The first step in determining register quality is therefore to identify the users and to assess their relative importance. Usually official users, such as the national statistical institute and other government departments, are considered to be relatively important users, whilst occasional users of register data in the private sector may be seen as of lower importance.

#### ***What are their needs?***

10.4 As mentioned above, each user will have different needs and priorities. Some of these needs may be well known and documented, this is likely to be the case for more important and regular users, whereas little may be known about the needs of occasional or potential users. A survey of user needs can be a very useful tool to

gather further information, particularly if it is possible to identify and include potential users.

10.5 Once user needs are known, they should be prioritised depending on the number and importance of the users that express them. This will then allow the development of a framework of criteria for assessing the quality of statistical business registers.

## **10B - Quality Criteria**

10.6 Eurostat-led work on quality in statistics has identified seven criteria, or aspects of quality relating to official statistics. The aim is to assess statistical outputs against each of these criteria to get a complete picture of their overall quality. It is likely that these criteria would coincide with those derived from a study of register user needs, therefore they are described below, and their application to statistical business registers is considered.

### **a) Relevance**

10.7 Statistical business registers should be relevant to the needs of their users. They should contain relevant units and variables, and should allow the derivation of relevant populations and samples for statistical surveys.

### **b) Accuracy**

10.8 Accuracy, in terms of correctly reflecting reality, has previously been considered to be of great importance for the quality of statistical business registers. It has, however, become apparent that this is not necessarily a priority for users, many of whom consider consistency and comparability over time to be of at least equal importance.

10.9 Accuracy is, however, one of the easier quality criteria to measure. Examples of how accuracy has been assessed include register quality surveys and comparing businesses actually present in certain geographical areas with those held on the register. Similar checks by economic activity are also possible, and may be undertaken jointly with relevant trade associations.

### **c) Timeliness and Punctuality**

10.10 The speed at which statistical business registers are updated to reflect real world events can be an important quality criterion for many users, however this may be in conflict with the need for comparability and coherence as mentioned below. With regard to the updating of variables, one solution that has been adopted in several Member States is to hold two versions of certain variables, one that reflects the latest available information, and one that is frozen for a certain period of time, e.g. one year. Users can then choose the version best suited to their purposes. This approach is discussed further in Chapter 17.

10.11 Most users would agree, however, that timeliness of information regarding whether a unit is currently active or not, is important. Units that are active in the real world, but are not yet present on the business register, are a major source of under-coverage, which in turn is an important element of sampling frame error, leading to increased bias in statistics and surveys derived from the register. Units that have ceased activity in the real world, but are still showing as active on the register will similarly lead to bias in outputs, as well as reducing sampling efficiency, and probably increasing response chasing costs for survey managers.

10.12 The time difference between an event occurring in the real world, and it being recorded on a statistical business register is usually referred to as a "lag". Where data come from administrative sources there are generally two elements to the total lag, the lag between the event and notification to the administrative source, and the further lag before this information is passed to the statistical business register. The measurement of lags can give important indicators of register quality.

#### **d) Clarity and Accessibility**

10.13 Clarity is not a particularly relevant criterion for statistical business registers, however, there are two aspects of accessibility that may be important to users. The first concerns how easily users and potential users can access the information held on the register. Access can range from being able to view the data for individual records directly from the database holding the register, to being able to access outputs such as sample details or summary analyses. Direct access to information on individual records is often restricted by legal or policy considerations, so it may be the case that it is not possible to meet user needs in this respect. Indirect access to non-disclosive data is likely to cause fewer problems, so the ease of access to this type of data can be considered to be a component of quality.

10.14 The other aspect of accessibility concerns the ease of interpretation of register information. Quality measures here should focus on the availability of the necessary documentation to allow users to interpret the information correctly, and the suitability of this documentation for a range of users.

#### **e) Comparability**

10.15 There are two aspects to comparability, comparability through space and comparability over time. In terms of statistical business registers within the European Union, comparability through space is comprehensively covered by the registers Regulation. Thus the obvious quality measure is the degree of compliance with this Regulation. This sort of comparability is very important, as statistical business registers are vital for many areas of business statistics. Comparable registers make the task of harmonising the statistics derived from them considerably easier. Comparability of units and classifications used within statistical business registers is also an aim of European statistical legislation.

10.16 Comparability over time may be less important to many users, however there is often a need to look at data at both the unit and the aggregate level for different points in time. This implies the need for full documentation of changes, and

mechanisms to link data, such as look-up tables, particularly where unit reference number schemes or classification systems change.

#### **f) Coherence**

10.17 Coherence with respect to statistical business registers can be considered both in terms of internal coherence and coherence with other registers. Internal coherence refers to the consistent treatment of data within the register, e.g. the consistent application of profiling or updating rules. Coherence with other registers is best achieved through the use and storage of reference numbers. This allows the matching of data and units between these registers, e.g. storing the Value Added Tax (VAT) reference number in the statistical business register allows data from the VAT register to be linked relatively easily. The use of a common reference number across all official business registers (administrative and statistical) is one way to achieve greater coherence, though this may also prove restrictive, as the definitions of units may vary between registers according to the purposes those registers are used for.

#### **g) Completeness**

10.18 A statistical business register can be said to be complete if it includes all units in the target population, and all required variables. In reality, complete coverage is impossible to achieve, at least partly due to the issue of lags referred to above. Completeness should, however, be an aim, and measures of completeness should be compiled, which provide useful quality indicators.

10.19 Register coverage is discussed in Chapter 6, which defines the target population in terms of size and activity. It should be noted, however, that completeness can mean different things to different users. For most statistical purposes, coverage in terms of economic relevance (e.g. the percentage of gross domestic product generated by the units in the register) is the most important measure, therefore coverage of very small units with an insignificant contribution to the variables of interest is unlikely to be seen as important. For other users, however, particularly those with an interest in business demography, coverage in terms of the numbers of units present will be a key quality criterion.

### **10C - Cost - A Related Constraint**

10.20 Cost is not regarded as a criterion for quality, but as a constraint. It limits the extent to which quality can be improved. Two components of cost can be considered, the cost to the statistical system and the burden on the data suppliers (usually enterprises or parts of enterprises). The use of administrative data drastically reduces the burden on businesses, and can reduce costs for the statistical office, however, this is likely to have a mixed impact on quality, leading to improvements in some criteria (an example could be timeliness, though there are huge differences between countries) but deteriorations in others (possibly relevance). This is considered further in Chapter 20.

## **10D - Reasons for Quality Defects**

10.21 Quality defects in a statistical business register may be due to systematic or random errors in the processing of administrative or statistical information, such as the non-transmission of some declarations, or keying, coding or programming errors. Some of the more common reasons for quality defects are considered in detail below.

### **a) Gaps in declaration procedures**

10.22 Statistical business registers are usually maintained from declarations by enterprises to administrative agencies, but the regulations that impose these declaration formalities on enterprises may fail to stipulate that certain events should be declared. For example, events resulting from a court decision rather than the will of the enterprise, such as compulsory winding up, are not generally covered by a declaration formality. Similarly, the regulations may waive certain formalities for some enterprises according to their legal form, activity or size. Additional sources of information must therefore be made available for such events or sub-populations.

10.23 Even where there is a statutory declaration requirement, an enterprise may ignore this obligation, particularly if this has no practical consequences for the enterprise.

10.24 The creation of a legal unit may be declared immediately if the legal unit needs an identity number or certificate of registration to be able to carry on its activities. Cessations of activity may, however, not be declared, either by negligence or simply because the entrepreneur does not know whether the cessation is final or merely temporary.

### **b) Inaccurate declarations**

10.25 Inaccurate declarations may be deliberate or unintentional. Where declarations are made to tax authorities, it is possible that incomes may be under-recorded, and/or expenses over-recorded. Principal activity is another variable that may be the subject of inaccurate declarations, this could be due to various reasons, including:

- when setting up a business, the entrepreneur may not know what the principal activity will be;
- the law may require the declaration of the company object, which may not be the same as the principal activity.
- the business does not understand the statistical concept of principal activity, particularly the application of the "top-down" method.
- In cases where the administration is trying to encourage certain economic activities, enterprises may tend to declare themselves to be engaged in those activities to try to derive some benefit.

### **c) Coding errors**

10.26 Coding errors can arise either in the administrative source or in the process of updating the statistical business register. This type of error typically affects stratification variables, such as size or principal activity, and will introduce bias into estimates. By increasing the variation in results, coding errors can necessitate an increase in sample size and thus raise the cost of surveys.

#### **d) Falsely active units**

10.27 This type of error can be automatically corrected for in a survey, but the expected percentage of falsely active units must be taken into account in determining sample size. It increases the cost of the survey since it will be necessary to ascertain for a larger number of non-respondents whether they have ceased trading or whether they are refusing or omitting to reply to the survey.

### **10E - Quality Standards**

10.28 When user needs, quality criteria and potential quality defects have been identified, it is necessary to establish certain quality standards against which register quality can be measured. These quality standards will vary greatly from country to country, depending on specific national circumstances, but the following general examples should be suitable in most circumstances:

- $x\%$  of entities created during year  $n$  must be registered before the end of year  $n+1$ . A suitable value for  $x$  is probably in the region of 95%.
- The rate of multiple registrations of the same unit should be less than  $x\%$ . In this case  $x$  should be less than five, and ideally very close to zero.
- The rate of falsely active units in each size class should be less than double the rate of cessations of activity.
- $x\%$  of units should hold valid values for key variables. The choice of  $x$  will vary according to the variable concerned and may also be influenced by the size of the unit.
- Stratification variables should be updated and checked on a regular basis. The business registers Regulation requires this to be annually for units included in survey samples and at least every four years for the others. This should be regarded as a minimum standard. Ideally, size indicators should be updated each year for all units with a delay of less than one year.

### **10F - Quality Measurement**

10.29 Some ideas regarding quality measurement have already been considered under the quality criteria above. Quality measurement can be seen as a one-off exercise, but it is preferable to see it as an ongoing process, monitoring changes to a set of quality indicators over a period of time. The following paragraphs consider different methods of measuring register quality.

#### **a) Control Surveys**

10.30 The most traditional method of measuring the quality of a register is to conduct control surveys specially designed to measure register accuracy. This allows the measurement of errors in classification by activity or size and an estimation of the proportion of falsely active units. Surveys of enterprises using a random sample drawn from the register for other statistical purposes may often be substituted for quality control surveys. It is important, however, to deal fully with the question of non-response in order to find out whether units that do not respond have ceased trading or whether they are omitting or refusing to reply to the survey.

### **b) User Needs Surveys**

10.31 More recently, however, the definition of the quality of statistical business registers has moved away from pure accuracy, and towards meeting a wider range of criteria based on differing user needs. This means that carrying out a survey of user needs periodically is important to determine the aspects of quality that should be measured. Such a survey is not necessarily an easy task, identifying users can sometimes be problematic, and including potential users is even more difficult. It is therefore recommended to keep a record of users of the register, including the uses or outputs they are interested in, as well as a record of queries from potential users. This can then form a sampling frame for surveys of users, and even allows an element of stratification by type of user. Potential users should be asked why they did not use the register following their query.

10.32 User surveys should be conducted on a regular basis to reflect changes in register use and user needs over time. An interval of three to five years is probably about right for large-scale surveys, though smaller surveys can be also very useful on an annual basis. The survey should give prominence to the needs of key users, either through the stratification method used, or by weighting the results. The results should then be used to determine the most important quality criteria, for which indicators should be developed and regularly monitored during the period between surveys. It may also be useful to set up user groups, through which key users can more rapidly give feedback or be consulted about possible developments to the register.

### **c) Coverage Checks**

10.33 Users of statistical business registers will require a certain level of coverage. As mentioned above, under the criterion of completeness, this coverage takes two main forms, coverage of economic activity, or coverage of units. There are three possible methods for measuring coverage. Ideally a combination of all three should be used.

- Comparison with external records - Every country has sources of data on enterprises or local units, which are maintained separately from the statistical business register and which, in principle, provide good coverage of a limited field. These can include public sector administrative sources, telephone directory records (yellow pages) or those of utility companies, business data consultants or trade associations. Examination of these records identifies units that seem to be absent from the statistical business register. Further investigation is then needed to check whether these units actually exist and

are not errors in the other sources, or already present in the statistical business register in a different form.

- Area control survey (cluster sample) - A more expensive but surer method is to conduct mini-economic censuses on a representative sample of geographical areas to record all productive units by a systematic sweep of the territory and to detect those not in the register. However, this method is not suitable for all activities, particularly certain services.
- Indirect check via employment - A comparison between employment estimates by geographical area and major sector of activity derived from the statistical business register and those obtained from other sources of employment data can give a general indication of register coverage defects.

10.34 It is more difficult to design a way of measuring register quality as regards the risk of duplication, or multiple recording, since this risk depends very much on the sources and procedures used to update the register. Duplication may be the result of confusion between the name of the local unit and that of the enterprise, or the use of an address other than the trading location for the purposes of registration. An example of the latter is where businesses register for VAT purposes using the address of their accountants. Possible solutions to the problem of quantifying duplication are to monitor unmatched records where more than one source is used, or to compare register count, employment and turnover data with other sources.

#### **d) Process quality audits**

10.35 Quality audits are a useful tool to monitor the quality of clerical processing and automatic updates. They can be achieved through regular analyses of key variables, clerical checks of a representative sample of update actions, or preferably a combination of the two approaches.

10.36 The analytical approach to quality audits should focus on regular monitoring of the effects of changes in the register. This can take the form of comparing counts of units tabulated by key variables before and after an update, to assess the impact of the update on different categories of units, and ensure that all changes can be adequately explained. Where a register is continually being updated, such analyses should be produced on a regular, e.g. monthly, basis. As well as comparing the analysis for period  $t$  with that for  $t-1$ , it is important to look at data for previous periods to build a more complete picture of longer term trends. Changes that may not seem significant between two periods can start to become more so if they are repeated in successive periods. One main advantage of this type of analytical approach is that it often gives register managers early warning of quality issues, so that they can be investigated and resolved before they impact on users.

10.37 Sample checks of clerical updates are a useful way to monitor the quality of the clerical input to a register. These checks should be regular, as random as possible in nature, and should also cover a representative selection of updates. Clerical audits are normally undertaken by experienced staff, who investigate the work of others to see if the actions taken comply with the current guidelines. The rate of clerical errors can then be monitored over time, and reduced where possible.



10.38 It is recommended that both approaches are used together. The analytical approach is more suited to auditing automatic updates, whereas clerical audits ensure the quality of manual interventions is known. Both approaches should be closely linked, preferably producing regular summary reports to inform managers and users. To be fully effective the quality audit function should be closely linked to the documentation and training functions in a form of “quality circle” so that issues identified are resolved, documented, and covered in future staff training. In this way it should be possible to ensure a sustained improvement in quality over time.

#### **e) Benchmarking**

10.39 It can be useful to compare the quality of business registers in different countries. This gives an appreciation of relative quality and usually leads to quality improvements through the exchange of ideas and methods. An important tool for benchmarking is the annual register questionnaire administered by Eurostat. International meetings such as the business registers Working Group and the International Roundtable on survey frames often also involve an element of benchmarking.

### **10G - Quality Improvements**

10.40 The following are examples of ways in which the quality of statistical business registers could be improved in certain circumstances. This list is not meant to be exhaustive, but aims to give ideas that could be adapted to national circumstances.

#### **a) Improve the operation of data supply channels**

10.41 A thorough knowledge of the methods and processes followed by data suppliers is vital to an understanding of register inputs from these sources. This should be achieved through close contacts and good working relationships. This also helps the data suppliers to gain an appreciation of why their data are needed, and what they are used for, which can, in turn, encourage them to make changes to improve data quality.

10.42 It is often useful to have some form of written agreement with the main data suppliers. This would not normally take the form of a legally binding contract (unless the agreement is with a commercial data supplier), but it should set out roles and responsibilities, data specifications, delivery formats and dates, and a statement on quality. It can also include provision for the return of feedback, including individual or aggregate data where appropriate, and the mechanism for resolving queries regarding the data. Such agreements are sometimes known as “service level agreements”.

10.43 When a good working relationship has been established with a data supplier, it may be easier to influence their data collection methods, and the nature of data collected. In some countries, statistical organisations have a legal right to influence administrative data collections, but this rarely works in practice without close co-operation at the working level.

## **b) Improve metadata**

10.44 The availability of relevant metadata greatly enhances the usefulness of data. This is particularly true in the case of statistical business registers, where metadata can take several forms:

- Source codes – these usually take the form of alpha-numeric codes, and are linked to particular variables to indicate the source of the information, e.g. they can be used to indicate whether the turnover figure for a particular enterprise comes from a statistical survey or an administrative source. This then allows assessments of the relative quality of variables.
- Dates – Like source codes these can be linked to data items to indicate the date to which the data relate, and/or the date on which that particular data item was last updated in the register. Again, this gives a valuable quality indicator, as more recent information is often regarded as being of higher quality.
- Documentation – Information about sources and processes is vital to help users assess the quality of register data. This is normally held as text, and should be in a format that is readily available to users. It is very important that such documentation is kept up to date.

10.45 It is recommended that as a minimum, source codes and dates should be stored for the main stratification variables: employment, turnover and economic activity classification. These should be displayed alongside the data for direct register users. The Internet is becoming an increasingly suitable place for the storage of documentation. Access to documentation on the Internet should be free of charge and open to the public.

## **c) Use supplementary data sources**

10.46 Supplementary data sources can be used to enhance coverage of units or variables; they can also help to resolve cases of conflicting data from primary sources. It is therefore important to be aware of potential sources and the sort of information they can provide. The use of administrative sources and satellite registers is considered further in Chapter 20.

10.47 Statistical business registers are used as sampling frames for statistical surveys. It is important that the flow of information between registers and surveys is two-way, so that information from surveys can be used to update the register in the same way as administrative sources. Surveys are particularly useful for the early detection of units that have ceased trading or changed their principal activity.

## **d) Develop the uses of the register**

10.48 Developing the range of uses and the number of users for a statistical business register increases the likelihood of feedback, and the early detection of errors and inconsistencies. Extending the customer base can sometimes also help to finance, or justify the funding of measures to improve quality.

## **e) Improve information processing**

10.49 The quality of a statistical business register also depends to a great extent on the management procedures and the rigour with which they are applied. For example, it should be common practice that before creating a new unit in the register, checks should be made to ensure that this unit does not already exist in some other form, such as with another economic activity or at another address.

10.50 Checks can be built into the register system to validate new data, whether taken on automatically or input manually, and report out errors and inconsistencies for clerical checks. Monitoring the number and type of errors reported can provide useful quality indicators.

10.51 The value of documentation for users has already been mentioned above, but it is equally important for those involved in maintaining and updating the register. Clear written instructions easily available to staff are vital for ensuring the consistency of information processing. This is particularly important where new staff are concerned.

#### **f) Focus on key units**

10.52 Most users of statistical business registers are likely to be interested mainly in those units that make a significant contribution to national economic activity, thus a small number of units may have a disproportionate effect on the user perception of quality. It is therefore logical to focus efforts to improve quality on the units that are of most interest to these users. Such units are generally large and/or complex, and are often best maintained through profiling. This subject is dealt with in detail in Chapter 19. It is worth remembering, however, that there are other users, such as those interested in business demography or the development of small and medium-sized enterprises, whose needs will not be met by profiling the largest units, so a policy to ensure sufficient quality for smaller units is also needed.

### **10H - Relation to the BR Regulation**

10.53 This chapter explores the definition of quality in statistical business registers, and considers how quality can be measured and improved. It is not therefore a direct interpretation of the Regulation on business registers.

**BUSINESS REGISTER  
RECOMMENDATIONS MANUAL**

**Chapter 11  
The General Approach to the  
Treatment of Changes**

**Status: First Revision – March 2003**

## THE GENERAL APPROACH TO THE TREATMENT OF CHANGES

### Contents

- 11A - Introduction
- 11B - Frames of Reference and Terminology
- 11C - Recapitulation of the Links between Units
- 11D - A Structured Approach to the Treatment of Changes
- 11E - Summary
- 11F - Relation to the BR Regulation

### 11A - Introduction

11.1 The previous ten chapters have concentrated mainly on statistical business registers as they exist at any point in time. The next eight chapters focus on changes in statistical business registers; that is, specific attention is paid to the dimension of time. The time dimension is important for many reasons, including the following:

- There is a large demand for information on business-demographic changes and their economic impact, e.g. survival and growth rates, numbers of births, deaths, mergers, etc.
- Many economic statistics based on populations of units from statistical business registers also have a time dimension. The treatment of changes in statistical business registers clearly has an impact on all these statistics.
- The treatment of changes affects the consistency and compatibility, of register based statistics. For instance, it influences how short term statistics are related to structural statistics. If the sampling frames of different statistics with the same reference moment or period are established at different dates, the treatment of changes occurring - or detected - in between these dates may have an effect on the mutual consistency of these statistics.
- Survey statisticians are confronted with changes in survey populations, for instance enterprise panels. They are interested in how the statistical business register links survey units over time, what changes are reported by the statistical business register, what are the causes of changes, etc.

11.2 When describing how to deal with changes, it is important to avoid confusion in terminology. For instance, the word "birth" used in the first example above can have different meanings. It could mean the registration of a new legal unit in an administrative register that serves as a source of the statistical business register, or the addition of a new enterprise record in the statistical business register, or the emergence of a new business in economic reality, whether or not registered anywhere. Section 11B deals with the different frames of reference involved and related terminology.

11.3 The treatment of changes is inevitably linked to what is registered in statistical business registers at any point in time, that is, units, characteristics and links between units. In other words, whatever events in the outside world are deemed relevant to consider, their consequences for registration in statistical business

registers have to be described in terms of changes in units, changes in their characteristics and changes in links between units. Since dealing with changes in links between units tends to be complex, a recapitulation of the links between the units of statistical business registers is given in section 11C for reference purposes.

11.4 Section 11D explains how the discussion of changes in chapters 12 to 16 is structured. However, it should be noted that the scope of that discussion has been limited in three respects:

- The first has to do with the fact that the Regulation on statistical business registers refers to two types of statistical units (enterprise and local unit), but these are not the only statistical units used in economic statistics. Other regulations mention for instance the enterprise group, the kind-of-activity unit (KAU) and the local KAU. These units are also relevant when discussing changes. Therefore, the discussion of the treatment of changes is framed by an identification of what types of changes are considered relevant in general, irrespective of what is mentioned in the Regulation on statistical business registers. However, in order not to tackle everything at once, in chapters 11-17 the treatment of changes has been considered only so far as such changes relate to the enterprise and the local unit. An effort has been made to make these chapters self-contained in the sense that when at a later stage other units are also to be considered in this manual, the recommendations regarding the current units will not be affected much (apart from possible extensions, of course).
- The scope of the chapters on the treatment of changes is also limited in terms of economic sectors. It focuses on market producers. The treatment of changes as presented for market producers can to a large extent also be used for units in the general government sector and for private non-profit institutions, but in some cases specific adaptations may be necessary.
- National statistical business registers in general cover only the national economic territory of the Member State. Enterprises and all lower level statistical units are therefore restricted to the national economic territory, although they may be part of a multinational group. In chapters 11-17 the international dimension has not been taken into account specifically. This is considered further in chapter 21 concerning enterprise groups.

## **11B - Frames of Reference and Terminology**

### *Frames of reference*

11.5 To avoid the confusion referred to above, it is useful to make a distinction between the real, observable world and its reflections in administrative files and in statistical business registers. (It is assumed that in the context of this manual the real world is only relevant insofar as it is observable). Administrative files are based on the application of administrative concepts in observing the real world, and statistical business registers on the application of statistical concepts to the real world.

11.6 Reality can not be observed or measured without applying an observation framework or model, and concepts. These are to a large extent derived from the purposes of observation. In the case of statistical business registers the main purpose is to produce a sampling frame for economic statistics. The purposes of non-statistical administrations (social security boards, chambers of commerce, tax authorities, etc.) are different. A tax administration, for instance, has files of taxable units such as VAT-paying units or units subject to company taxation.

11.7 However, differences in purpose of observation do not necessarily result in incompatible measurements of reality. A business in reality, for instance, may very well be reflected in the statistical business register as an enterprise, and at the same time in the files of the tax administration as a taxable unit. For this reason statistical business registers do not only observe reality directly by means of surveys (direct register surveys, "profiling" or "proving" of large business organisations, and feedback from statistical surveys), but also indirectly by analysing administrative files. In practice such files are often much more important to the updating of the statistical business register than direct observation, at least for smaller units. The relevance of administrative files to statistical business registers is also clear from the fact that the legal unit - which is defined by other administrations than the statistical institute - is part of the statistical business register, and is the "building block" of the enterprise. In fact, in most cases it equals the latter.

11.8 It is useful to bear in mind that even if the statistical business register and an administrative register happen to contain similar units, the correspondence does not necessarily carry over to changes. For example, if an administrative register replaces a legal unit equalling an enterprise by another legal unit, the enterprise could still be the same. If the distinction of the frames of reference depicted above is useful when discussing units, it is even more useful when discussing changes. The use of administrative data for statistical purposes is discussed further in chapter 20.

### *Terminology*

11.9 If a distinction is made between different frames of reference, it may be wise to reflect this in the choice of terminology. In other words, statisticians should try to avoid using a term like "birth" without qualifying it, or use different terms when referring to the different frames of reference. In this manual the following convention is applied:

- Changes in the real, observable world are called "events". Each event that is deemed important enough to make statistics about is identified as a statistical concept which will be given a name, where possible tuned to the terminology of the users of those statistics. An example would be "birth". (A complete terminology is presented in chapters 12, 13 and 15, including definitions.) To emphasise that a statistical concept refers to the real, observable world, it may be preceded by the word "real" (e.g. "real birth").
- Changes in statistical business registers are called "movements" (or "register movements"). The two most important movements are the addition of a new statistical unit record to the business register (e.g. following the real birth of an enterprise) and the removal of an existing record. These movements are called "creation" (or "register creation") and "deletion" (or "register deletion"),

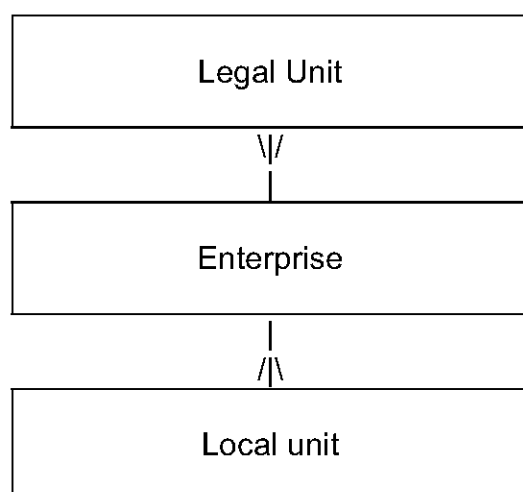
respectively. Where in the following the term "business register" is used, it refers to the statistical business register; this will also be evident from the context.

- Changes in the administrative files are called "administrative changes". The two most important administrative changes are the registration of a new administrative unit (e.g. the creation of a VAT unit in a VAT register) and its deregistration.

11.10 In some cases it is not necessary to specify the frame of reference. The terms "business" and "changes" will be used in such cases, for instance when referring to "the treatment of changes" in general.

## 11C - Recapitulation of the Links between Units

11.11 As explained in earlier chapters, the legal unit, the enterprise and the local unit are linked to each other in a particular way. Their relationship can be depicted as follows:



11.12 This diagram represents the fact that each enterprise is linked to (i.e., consists of) one or more legal units, and each enterprise is linked to (i.e., consists of) one or more local units. It is worth noting that *some legal units, e.g. dormant units, are not necessarily linked to any enterprise*, but local units are always linked to an enterprise.

11.13 In addition to the links shown above, the Regulation on business registers mentions the option *to register links representing control between legal units*. Such links are not restricted to legal units belonging to the same enterprise. They may also determine relationships between legal units within an enterprise group. If such links are recorded for the legal units of the same enterprise, they allow to determine which legal unit has the ultimate control. For the following chapters this means that the concept of "controlling legal unit" is applicable.

11.14 As stated in earlier chapters, it is recommended that the business register contains separate records and identity numbers for the legal unit, the enterprise and the local unit, even if they coincide. However, it was stated as well that if separate records for different units are not explicitly recorded and this does not lead to any



reduction of the information that can be provided by the business register, this would be acceptable. Therefore, it may be assumed for the purposes of the chapters on the treatment of changes that the units and links of the diagram above are explicitly recorded in all cases.

## **11D - A Structured Approach to the Treatment of Changes**

11.15 The purpose of a business register is to record statistical units, their links and their characteristics to an agreed level of quality at any point in time. This should take into account the demand for information, the available resources, the need for coherence between structural and short-term statistics, and the effects of information collection on the response burden it places on businesses. If the dimension of time is added, a similar statement holds. Then the purpose is to record changes in the existence of statistical units, changes in links and changes in characteristics over time. Similarly, these register changes should as truly as possible reflect the changes in the real, observable world in view of the considerations mentioned.

11.16 Therefore, if one wants to know the rules for carrying through movements in business registers, it is recommended to start with an overview of events, which is in line with the demand for information. A general overview is given in chapter 12. It primarily identifies events with an impact on the existence of statistical units and the links between them, that is, on so-called demographic events. An event may have an effect on one type of statistical unit only, but it may just as well affect different types of statistical units at the same time, and their links. It may influence characteristics of statistical units as well.

11.17 It is useful to bear in mind that the phrase "with an impact on the existence of statistical units" is not self-evident. The question is not only whether or not the definition of a statistical unit is fulfilled at any point in time, but it is just as relevant to determine whether a unit has the same identity as before. That is, one has to consider what might be called the existential and the essential components of the statistical unit.

11.18 The overview of chapter 12 forms the basis for specific chapters on enterprise changes (chapters 13 and 14) and local unit changes (chapters 15 and 16). In chapter 13 a typology of demographic events that may occur to the enterprise is derived, followed by a description of their consequences in terms of movements in business registers. The typology of events is justified in terms of information demand. The availability of information and the cost of information collection, both for the statistical institute and the respondent, are key considerations in the discussion of how to reflect events in business registers. Chapter 14 describes the identity continuity rules for the enterprise, both conceptually and in terms of register movements. The chapters on local unit changes have a similar structure.

11.19 Although chapters 12 to 16 focus on demographic changes, the scope of these chapters is somewhat wider. Demographic and non-demographic changes are entangled in several ways, and too strict an application of the metaphor of human demography to the field of economic statistics would not be desirable. Therefore, where relevant, changes of characteristics of statistical units are taken into account

as well. For instance, demographic events may have an impact on characteristics of units, such as their principal economic activity or size. Links between legal units are also relevant when discussing demographic changes, because they determine the constitution of the enterprise group. Some of the users of business registers and statistics based on them may not be very interested whether changes in the population surveyed are called demographic or not. Some changes of characteristics, however, do not have any clear connection with demography, therefore a separate chapter (chapter 17) on changes of characteristics complements chapters 12 to 16.

11.20 As stated above, in principle register movements should as truly as possible reflect the changes in the real, observable world. Obviously the ideal of precisely and instantaneously reflecting all relevant events can never be reached, just as the ideal of truly representing all relevant real world units at any point in time can never be reached. (In fact, from the viewpoints of cost-efficiency, response burden and coherence between structural and short-term data, it is not even desirable that the ideal is realised). As a consequence, there will always be some false register information, some information will always be missing, and some register movements will be false. This entails the need to carry through corrections in the business register if errors are detected. Since this is a major concern in the management of business registers, a separate chapter (chapter 18) is devoted to this.

11.21 Finally a remark on the time scale of events and register movements must be made. It is helpful to imagine the real world units to be represented in the form of a film. At certain moments the picture changes, meaning that events have occurred. But changes also occur gradually. For instance, the start-up of a business or a merger of businesses may take some time. Three problems relate to this issue.

- First, there is a problem of dating changes. At what moment is a new business that goes through a long start-up process considered to be existing, entailing a register creation? This problem is dealt with in chapters 13 and 15 on enterprise and local unit events, respectively.
- The second problem consists of what changes to take into account at all. In the metaphor of the film, certain events will or will not be perceived depending on the speed of the film. Comparing enterprises or local units after a number of years would in many cases lead to the conclusion that they have changed considerably, implying changes of identity. But if the same enterprises and local units are compared every week, it is very well conceivable that in any single week there was no change big enough to change identity. In this manual a pragmatic solution is chosen. Since most statistics using business registers have a frequency of at least once a year, and register updating is often carried out continually or very frequently, only events taking place within the period of a year (not necessarily a calendar year) are taken into account. This implies that it is possible that more than one event occurs during a year, in which case they are all taken into account.
- The third problem is maintaining consistency between short term and long term statistics. If within a year several changes occur concerning the same unit(s), the long-term change would be the "consolidation" of the short-term changes. It is

even possible that the short-term changes cancel each other, for instance if a birth is followed by a death. This problem is not dealt with in the chapters on the treatment of changes. The register movements can be carried through in accordance with real events, i.e. continuously; however, this results in consistency problems between short-period and structural statistics. One solution is to hold two versions of key variables, one that always reflects the latest information, and one that remains unchanged over an agreed period (usually one year).

## **11E - Summary**

11.22 Chapters 11-17 on the treatment of changes only cover the enterprise and the local unit. They focus on market producers and are restricted to the national economic territory covered by each national business register. Only events that take place within the period of a year are taken into account. A distinction is proposed between different frames of reference: the real, observable world; administrative concepts; administrative files; statistical concepts; and the statistical business register. The word "event" refers to reality, "administrative changes", refer to the administrative world, and "(register) movements", "(register) creation" and "(register) deletion" refer to the business register. Register movements are changes in the existence of units, links between units, and characteristics. It is assumed that every enterprise has a so-called controlling legal unit.

## **11F - Relation to the BR Regulation**

11.23 Since this chapter merely prepares the ground for chapters 12 to 16, it is, as such, not considered an interpretation of the Regulation on business registers. However, insofar as those parts of the following chapters that do constitute an interpretation of the Regulation refer to this chapter, explicitly or implicitly, regarding terminology or other elements, this chapter is, of course, relevant to the interpretation of the Regulation.

**BUSINESS REGISTER  
RECOMMENDATIONS MANUAL**

**Chapter 12  
A General Overview of Demographic  
Events**

**Status: First Revision – March 2003**

## **A GENERAL OVERVIEW OF DEMOGRAPHIC EVENTS**

### **Contents**

- 12A - Introduction
- 12B - Criteria for the identification of demographic events
- 12C - A general typology of demographic events
- 12D - Typologies of demographic events for specific statistical units
- 12E - Summary
- 12F - Relation to the BR Regulation

### **12A - Introduction**

12.1 This chapter describes the main demographic events to be distinguished from a user's point of view, without restriction to any specific types of statistical units and without making assumptions as to the actual or recommended structure, contents, or updating procedures of business registers. It also serves as a general framework for other chapters in which the demographic events occurring to specific statistical units are considered, as well as their consequences in terms of register movements.

12.2 This chapter focuses on demographic events, that is, events with an impact on the existence of statistical units and links between them. The scope is slightly wider, since demographic events can not be treated entirely in isolation, particularly from the user's point of view. Therefore the relationship between demographic changes and changes of some characteristics of statistical units is also considered.

### **12B - Criteria for the identification of demographic events**

12.3 A statistical business register reflects the businesses of the real, observable world insofar as they are considered relevant to the users of statistics. Such a projection of reality is necessarily limited in the sense that it is the result of a choice as to what aspects of the real, observable world are taken into account. A similar choice has to be made if one tries to reflect the dynamics of the real world. In principle these dynamics can be described in many ways, but it stands to reason to consider such a "dynamic view" in this manual in a way which is consistent with the "static view" which is represented by the statistical business register at any point in time. Therefore the criteria developed in the following paragraphs focus on the dynamics of the combined populations of statistical units of different types and their relationships.

### ***Categories of uses***

12.4 When formulating criteria it is important to take the uses to be served into account. One can distinguish between external and internal uses, that is, between the use for statistical outputs depending on the business register, and the use within the statistical institute. The external uses can, in turn, be subdivided into business-demographic statistics and other statistics to which demographic categories are relevant. An example of the former are statistics on the birth and death of units, an

example of the latter are time-series for populations of statistical units such as enterprise panels, in which for example the number of births and deaths of units are specified and their impact on the variables measured possibly quantified.

12.5 Although in principle the criteria for the identification of demographic events are derived from the demand for information by external users, one should bear in mind that information on events is also important for survey statisticians. They want to know how surveyed units relate over time, and what are the causes for entrance to and exit from survey populations. They need this information for obvious practical reasons of data collection and processing, but also for the interpretation of the data collected.

### **Criteria**

12.6 What demographic events are relevant? At a high level of abstraction, this question is not difficult to answer. By definition demographic events have an impact on the existence of statistical units and links between them. The statistical units have been identified and defined in view of the observation and analysis of the production system, as stated in the Regulation on statistical units. Therefore changes in the constituent factors of the production system, as well as in the structure of business organisations in terms of statistical units are relevant. But what factors exactly and what changes in structure are most relevant to take into account?

12.7 An important consideration must be that the enterprise is the central unit of the statistical system. All statistical units are defined in terms of the enterprise, at least insofar as they are observable. They are either a part of the enterprise in terms of economic activity or location (kind-of-activity unit (KAU), and local unit, respectively), or a combination of enterprises bound together by legal and/or financial links (enterprise group). It stands to reason to identify and group demographic events in a way that reflects the central position of the enterprise in the statistical system.

12.8 The enterprise is defined as "...an organisational unit producing goods or services which benefits from a certain degree of autonomy in decision-making, especially for the allocation of its current resources...". Changes in the existence of such combinations of production factors must be important events to the users of statistics based on the units concerned. The same goes for changes in the existence of parts of those combinations of production factors, if these parts are distinct in respect of economic activity or location. Moreover, it would be relevant to distinguish whether a change in the existence of an enterprise also affects the existence of the group to which it belongs.

12.9 Apart from changes in the existence of production factors as combined in statistical units, changes in the distribution of existing production factors are relevant to the users of economic statistics. If it is assumed that such changes are demographic, they must result in changes in the existence of the statistical units involved or in the links between them. Again, distribution changes can be considered at several levels. If the enterprise level is taken as the level of reference, redistribution can take place within the enterprise and would involve changes at the KAU and/or local unit level.

12.10 A redistribution can also take place among enterprises, which may result in a decrease of the number of enterprises (concentration, for instance resulting from the merger of enterprises), or in an increase (de-concentration, for instance as a consequence of a split-off of an enterprise from an existing enterprise). The number of enterprises may also remain the same; in which case the redistribution may take the form of a KAU or local unit transfer; in other cases it may be called a restructuring. If the group level is taken into account, redistribution among enterprises may or may not concern more than one group, and an enterprise may be transferred from one group to another.

12.11 The text above covers all main requirements concerning data on business demography. However, if uses connected with time-series were considered, the above approach would not be sufficient. If populations of statistical units are followed over time, the criteria mentioned would certainly be relevant, but their effect on unit characteristics, especially if they are used for frame definition or stratification, would also be very important. Examples of such characteristics are size class, economic activity, and location. Changes of characteristics may, however, be caused by non-demographic events. From the user's point of view it seems logical not to separate the discussion of demographic and non-demographic changes for those characteristics that may be affected by demographic changes.

12.12 Finally one concept that deserves special mention is the entrepreneur of an enterprise. In demographic analyses this concept is often referred to. Although strictly speaking changes of entrepreneur are not demographic - the entrepreneur is as such not a statistical unit or a link between statistical units - the controlling legal unit can be seen as an approximation of the concept of entrepreneurship, especially if it is a natural person. For this reason changes in controlling legal unit could be considered relevant for uses closely related to business demography.

## **12C - A general typology of demographic events**

### ***Typology***

12.13 Application of the criteria and considerations mentioned above results in the general typology of demographic events given below. The typology is followed by some explanatory remarks.

1. Changes of existence of combinations of production factors
  - 1.1 *Emergence of combinations of production factors*
    - 1.1.1 Birth of an enterprise group
    - 1.1.2 Birth of an enterprise
    - 1.1.3 Birth of a KAU or local unit
  - 1.2 *Disappearance of combinations of production factors*
    - 1.2.1 Death of an enterprise group
    - 1.2.2 Death of an enterprise
    - 1.2.3 Death of a KAU or local unit
2. Changes in the distribution of production factors
  - 2.1 *Redistribution of the production factors within one enterprise*

- 2.1.1 Redistribution of production factors over KAUs and local units
- 2.1.2 Redistribution of production factors over KAUs only
- 2.1.3 Redistribution of production factors over local units only
- 2.2 *Redistribution of the production factors of more than one enterprise*
  - 2.2.1 Concentration of enterprises
    - 2.2.1.1 Concentration with no enterprise group involved
    - 2.2.1.2 Concentration within an enterprise group
    - 2.2.1.3 Concentration involving more than one enterprise groups
  - 2.2.2 De-concentration of enterprises
    - 2.2.2.1 De-concentration with no enterprise group involved
    - 2.2.2.2 De-concentration within an enterprise group
    - 2.2.2.3 De-concentration involving more than one enterprise group
  - 2.2.3 Transfer of production factors between enterprises
    - 2.2.3.1 Transfer of a KAU or local unit with no enterprise group involved
    - 2.2.3.2 Transfer of a KAU or local unit within an enterprise group
    - 2.2.3.3 Transfer of a KAU or local unit between enterprise groups
  - 2.2.4 Restructuring
    - 2.2.4.1 Restructuring with no enterprise group involved
    - 2.2.4.2 Restructuring within an enterprise group
    - 2.2.4.3 Restructuring involving more than one enterprise group
- 2.3 *Transfer of an enterprise from one enterprise group to another*

### ***Explanatory remarks***

12.14 For a proper understanding a couple of remarks have to be made. The categories of the typology are the main types of events distinguished. Each event has to be classified into one and only one category of the typology. However, a real life event may not match the definition of any category precisely. For instance, it is possible that a business organisation is restructured, and at the same time some production factors disappear. As is the case with many other classifications, in such cases the best fitting category has to be determined.

12.15 Another remark concerns category 1, changes of existence of combinations of production factors. The subcategories should be applied top-down. For instance, if an enterprise and its local unit are born, and the birth takes place within an existing enterprise group, the event is classified into category 1.1.2. The categories 1.1.3 and 1.2.3 apply only if within an existing enterprise a lower level statistical unit is born or dies.

12.16 The next remark concerns concentration and de-concentration. These terms are known to have a wider meaning. In daily usage they may be understood not only to refer to the enterprise level but also to the enterprise group level, meaning a reduction or increase of the number of groups. The use of the term in the typology above is a consequence of taking the enterprise as the unit of reference.

12.17 Finally it should be noted that the typology can only be applied if a precise interpretation is given for the (dis) continuity of the identity of each of the statistical



units mentioned. Since this is an elaborate exercise, which is by definition unit-specific, this is covered in the chapters dealing with changes concerning the specific statistical units.

### ***Possible extensions***

12.18 The above typology can be extended in several ways. For instance birth and death of a KAU or local unit can be subdivided according to the type of unit(s) involved: birth of a KAU which is a local unit; birth of a KAU which is not a local unit; birth of a local unit which is not a KAU; etc. A similar remark applies to transfer of production factors between enterprises. The categories of concentration and de-concentration can be subdivided by the various forms in which they may take place. If more than one enterprise group is involved, the effect on the number of enterprise groups may be taken into account explicitly.

12.19 Another possible subdivision is by the effect of the event on characteristics of the statistical units concerned. For example, if an enterprise is split off (de-concentration), it would be very relevant for users to distinguish between the case where the split off unit carries out the same principal activity as the original enterprise and the situation where the principal activities are different. But strictly speaking such subdivisions would not be demographic subdivisions.

12.20 If non-demographic events are taken into account, the typology could be extended by different categories of changes of characteristics. One relevant change of characteristic, which is closely related to business demography, is the change of controlling legal unit.

## **12D - Typologies of demographic events for specific statistical units**

12.21 The requirements for a statistical system to allow for the full application of the typology presented above would be extraordinary high. In practice only one type of statistical unit is usually considered for a particular purpose, even for business-demographic statistics. Surveys are also generally based on only one type of statistical unit; therefore typologies of events applied to time-series tend to be restricted to events related to the unit concerned. This means that there is a need for a typology of demographic events for both enterprises and local units (and enterprise groups, possibly also for other units like LKAUs).

12.22 The typology in paragraph 12.13 forms a good starting point for such unit-specific typologies. It offers a coherent framework and allows a description of the relationship between the different unit-specific typologies. However, when working out a typology for a specific statistical unit, several points have to be taken into account:

- The categories of the typology above will have to be validated in terms of measured demand. A full picture of the demand for information on the specific categories that are deemed relevant to the statistical unit under consideration is still needed.

- The categories of the typology above are not necessarily all that is relevant to the statistical unit under consideration. At the level of the specific statistical unit subdivisions are possible, and some changes of characteristics may be relevant.
- Considering the fact that each statistical unit is linked to a higher-level and/or a lower-level unit, a unit-specific typology could very well incorporate changes in the links with the next higher and/or lower level.
- Each unit-specific typology of demographic events must be complemented by a set of rules concerning the (dis) continuity of the statistical unit.
- For reasons of consistency and statistical co-ordination and in order to have the possibility to relate statistical information about different types of statistical units, it is important to describe the relationship between the different unit-specific typologies applied.

12.23 The last point may be complicated. One may note that even if very similar typologies are applied, the events occurring to the different types of statistical units may be classified differently. (Compare classifying enterprises and their local units according to the same classification of economic activities: the local units are not necessarily all classified into the same industry as the enterprise to which they belong.)

## **12E - Summary**

12.24 This chapter presents a typology of demographic events, which is not restricted to any type of statistical unit, although the enterprise plays a central role in it. The typology is mainly based on changes in the existence of production factors and their distribution within and among business organisations, while taking into account their structure in terms of organisational units of production, economic activities, locations, and legal/financial links. The typology can serve as an integrating framework for typologies of unit-specific events.

## **12F - Relation to the BR Regulation**

12.25 Since this chapter merely prepares the ground for chapters 13 to 16, it is, as such, not considered an interpretation of the Regulation on business registers. However, insofar as those parts of the following chapters, which do constitute an interpretation of the Regulation, refer to chapter 12, explicitly or implicitly, it is, of course, relevant to the interpretation of the Regulation.

**BUSINESS REGISTER  
RECOMMENDATIONS MANUAL**

**Chapter 13  
Demographic Changes Concerning the  
Enterprise**

**Status: First Revision – March 2003**

## **DEMOGRAPHIC CHANGES CONCERNING THE ENTERPRISE**

### **Contents**

- 13A - Introduction
- 13B - Typology of demographic events for the enterprise
- 13C - Register movements reflecting demographic events
- 13D - Summary
- 13E - Relation to the BR Regulation

### **13A - Introduction**

13.1 This chapter describes the demographic events concerning enterprises and the associated movements in business registers. Where appropriate, changes of characteristics are taken into account as well. The demographic events described are those that are considered relevant to users of statistics based on business registers. These statistics comprise most economic statistics, notably business-demographic statistics themselves.

13.2 Regarding the relationships between statistical units, changes in the links between enterprises and enterprise groups have been taken into account. Changes in the links between enterprises and local units and relations between the typologies of demographic events for the enterprise and the local unit are discussed in chapter 15. The relationship between enterprise identity and local unit identity is covered in chapter 16.

13.3 Statistical business registers represent the existence of an enterprise by the attachment of a unique identity number to a record for the enterprise. The creation and deletion of records are logically linked to the creation and deletion of identity numbers and are meant to correspond to changes in the existence of enterprises. Similarly, if there is no discontinuation of the enterprise, its identity number should not change. The specific continuity rules, which describe the conditions under which identity numbers should be created or deleted, are given in chapter 14. (This is done for reasons of transparency; the rules will be better understood after the explanation of their purpose and application in the present chapter.)

13.4 This chapter is structured as follows. A typology of demographic events is given in the following paragraphs, including explanatory notes and an indication of the relevance of the events. These events are then translated into register movements, under the assumption that continuity rules are available.

### **13B - Typology of demographic events for the enterprise**

13.5 In the general typology of demographic events presented in chapter 12, the relevant classes were defined in terms of changes of specific statistical units. This chapter will concentrate on the effects of the events listed in the general typology on

the enterprise, with subdivisions where relevant. Proceeding like this has several advantages:

- A "cross-section" of the general typology for a specific statistical unit is useful for those statistical institutes that do not use all statistical units mentioned in the general typology.
- For reasons of survey processing it is very useful to have a typology that applies specifically to the units of the survey.
- The typology can be adapted to particular needs related to specific statistical units. By using a separate, derived typology for the enterprise, the general typology does not become too intricate.

### ***Criteria***

13.6 The criteria for distinguishing demographic events presented in chapter 12, namely the existence and distribution of (combinations of) production factors have to be applied to the enterprise in a systematic way. This has to be done in accordance with the user needs. The demand does not only concern business-demographic statistics, but also other economic statistics that are affected by these events. Users in this context include both users of statistics and statistical staff, who need this information to manage surveys.

13.7 At the level of the enterprise, the categories of the general typology appear to be different in two respects:

- The continuity of the enterprise - For example, in case of a death of an enterprise, it loses its identity, whereas redistribution of production factors does not necessarily involve identity loss.
- The number of enterprises involved in an event - Both the numbers of enterprises before and after the event are relevant. For instance the birth of an enterprise (in the sense of the setting-up of a new business from scratch) and the concentration of two existing enterprises differs, among others, in the number of enterprises involved.

13.8 Application of these two criteria yields the categories of the general typology at the enterprise level plus some subcategories, as will appear below. It makes it also possible to derive and define all possible demographic events at the enterprise level in a systematic way. In particular, they allow treating the redistribution of production factors in a more precise and elaborate way.

13.9 If the continuity of the link between the enterprise and the enterprise group is taken into account as well, a corresponding criterion must be added.

### ***Demographic Events***

13.10 Application of the criteria results in the events at the enterprise level as listed below. The events are followed by explanatory notes and an indication of the related demand for statistical information. The terminology chosen is intended to be in accordance with what is common among the users of the statistical information. The

events listed are mutually exclusive. Since the list is also exhaustive, it is a full typology of events.

*Existential changes (events involving only one enterprise after the event and none before or only one enterprise before and none after)*

- *Birth*
- *Death*

13.11 Births and deaths of enterprises are not the same concepts as creation and deletion of identity numbers, for two reasons. Firstly, births and deaths are events (concerning the real, observable world) and the creation and deletion of identity numbers are register movements. Secondly, births and deaths involve only one enterprise, whereas other events involving many enterprises may also result in the creation and deletion of identity numbers, for instance merger. The convention of this manual to restrict births and deaths to involve on one enterprise is very important, because the use of these terms is often confusing. The convention is chosen because it is in line with the terminology of users, who are interested in questions such as "How much employment is generated by enterprise birth?" If the term "birth" is used in the sense of these kinds of questions, enterprises emerging from for instance mergers or split-offs are not to be included.

13.12 Thus the birth of an enterprise is the bringing into being of an enterprise where no enterprise existed before and no other enterprises are involved. The death of an enterprise is the opposite. Since the enterprise is an organisational unit producing goods or services (according to its definition), a birth amounts to the creation of a combination of production factors and a death amounts to the dissolution of a combination of production factors, both with the restriction that no other enterprises are involved in the event. The definitions of number of births of enterprises and number of deaths of enterprises for the purposes of structural business statistics in Commission Regulation (EC) No 2700/98 are fully consistent with those used in this manual. A more detailed discussion on distinguishing enterprise births from other creations and enterprise deaths from other cessations is in the Eurostat (Draft) Business Demography Recommendations Manual.

13.13 A problem associated with births and deaths is the date of occurrence of these events. At what point in time is an enterprise considered to be born, conceptually? In principle the date could be decided by referring to the definition of the enterprise: the birth takes place at the (first) moment the conditions of the definition are met, so the moment there is an organisational unit producing goods or services. Paragraphs 13.29 - 13.30 give an operational answer to the question of the date of occurrence of birth and death.

13.14 It is also important to consider the concept of reactivation in connection with births and deaths. If an enterprise becomes inactive, but re-starts activity within 24 months, it is considered to be a reactivation, and therefore not a death or a birth. This subject is treated in more detail in chapter 14.

*Changes within an enterprise (events that do not involve creations or deletions)*

- *Change of ownership*
- *Restructuring within an enterprise*
- *Change of group*

13.15 A change of ownership is where a new legal unit is formed to take over the activities of an existing enterprise. An example is where a sole proprietor retires and sells the enterprise to a new entrepreneur. Although the legal unit changes, this event should not in itself affect the continuity of the enterprise; therefore there are no creations or deletions of enterprises.

13.16 Restructuring within an enterprise does not affect the continuity of the enterprise, but changes its structure in the process. An example could be the creation or deletion of a local unit. Re-structuring may affect key characteristics such as size or principal activity. It could be argued that this is not really a demographic event at the level of the enterprise, but it is included here for the sake of completeness, and because it could affect the way the enterprise is included in demographic statistics.

13.17 Change of group could be regarded as a special case within the definition of a complex restructure given below, however, it is worth distinguishing it at the level of the enterprise, as it does not involve a creation or deletion. In this case the same combination of production factors exists before and after the event. After the event it belongs to another enterprise group than before. The phenomenon of change of group has been prominent in the economic and financial press for many years. There is certainly a high demand for information on it.

*Concentration (events involving more than one enterprise before and one enterprise after the event)*

- *Merger*
- *Take-over*

13.18 Enterprises may integrate to the extent that the number of existing enterprises is reduced, that is, concentration takes place. Such integration may take different shapes. If two enterprises integrate entirely, the enterprises involved may either lose their identity because they are dissolved beyond recognition in the new organisation or one of the enterprises may remain the same. In the latter case the other enterprise is generally much smaller; it is merely absorbed by the larger enterprise, which remains largely the same. If both enterprises lose their identity, the event is called a merger; if one of them keeps its identity it is called a take-over. In the case discussed it is not possible that both keep their identity, because then the number of enterprises would not change.

13.19 As will be clear from what was said in chapter 12, the term "concentration" is used here in a specific sense: it refers to events which reduce the number of enterprises. In other contexts the term is sometimes used to denote that the population of enterprises gets fewer owners or is spread over a reduced number of enterprise groups. However, since such phenomena relate to the enterprise group level, they are to be treated later in this manual.

13.20 Although in the case of concentration the number of enterprises is reduced, mergers and take-overs do not involve the death of units, as explained earlier. Death is a different event. But these events may all entail the deletion of records in the business register. Likewise the emergence of a new enterprise from a merger of enterprises is not considered a birth. It should also be pointed out that as a consequence of a take-over some characteristics of the enterprise that keeps its identity might change. For instance, it may enter a different size class or get a different principal economic activity. Such effects are very important, especially to survey statisticians.

13.21 The demand for information on concentration clearly exists; the integration of production capacity into a reduced number of units is a very relevant economic phenomenon. The distinction between a merger and a take-over may, however, be of less importance for users of statistics, especially if the frequency of occurrence is taken into account. This distinction is, however very relevant to statistical survey managers, since it affects which units in samples and sample frames remain the same over time. If concentration is studied from the point of view of the statistical business register, the distinction between the two events is easy to make, due to the rules concerning the continuity of enterprise reference numbers.

*De-concentration (changes involving one enterprise before and more than one enterprise after the event)*

- *Break-up*
- *Split-off*

13.22 The events of de-concentration mirror those of concentration: the counterpart of the merger is the break-up and the counterpart of the take-over is the split-off. In a break-up, the enterprise is divided in such a way that neither (none) of the new enterprises keeps the identity of the original enterprise. In a split-off the new enterprise(s) is (are) generally much smaller and the identity of the original enterprise is retained by the larger enterprise. The remarks on the terminology for mergers and take-overs apply here as well.

*Changes involving more than one enterprise before and more than one enterprise after the event:*

- *Creation / cessation of a joint venture*
- *Restructuring within an enterprise group*
- *Restructuring involving more than one enterprise group (complex restructuring, this comprises other possible events)*

13.23 A joint venture is created when two or more independent enterprises agree to commit some of their resources to work together on a common project or towards a common goal. An important feature of a joint venture enterprise is that none of the original enterprises exercise outright control over the entity created, therefore it is considered to be an enterprise. The two or more original enterprises remain in existence and keep their identity, so there is an increase of the number of enterprises by one. Similarly the cessation of a joint venture results in a reduction of



the number of enterprises by one. The demand for data on joint ventures is clear, however, it should be mentioned that some joint ventures involve the transfer of considerable parts of production capacity to the new enterprise, while others involve the transfer of financial capital or know-how.

13.24 Restructuring within an enterprise group is a change (e.g. creation and/or cessation of one or more enterprises) involving more than one enterprise before and more than one enterprise after the event, where all enterprises involved are under common control. It affects the identity of at least one enterprise, though the total number of enterprises before and after the event may be the same.

A typical example is the complete reorganisation of the production capacity of a large enterprise group, involving many enterprises and possibly, but not necessarily, entailing a change in the number of enterprises of the group.

13.25 Complex restructuring is a similar event, but this is not constrained to one enterprise group. An example is the transfer of a number of enterprises or parts of enterprises between groups.

13.26 Restructuring may affect characteristics of the units that keep their identity; their principal economic activity and size class may change, for instance.

Since the economic interests involved may be considerable, restructuring is relevant both from an information demand point of view and for statistical staff, although its heterogeneous nature and infrequent occurrence make it a difficult phenomenon to cover in statistics.

### ***Possible Extensions***

13.27 There are several possibilities for extension, for example the category of creation of a joint venture could be split into the creation of joint ventures that obtain their production capacity from their parent enterprises and other joint ventures. Whether such subdivisions are desirable depends on the demand of information, the frequency of occurrence, availability of information sources and cost considerations.

13.28 As was mentioned above, demographic events may alter characteristics of units that keep their identity. In this respect size class and principal economic activity are particularly important. Of course changes in these characteristics may also occur without any demographic event taking place. The demand for information about changes in size class and in principal economic activity is clear, both as such and in relation to other statistical information. Within size, changes in both employment and turnover class are important, partly because small and medium-sized enterprises (SMEs) are defined in terms of both employment and turnover class. Changes of characteristics are also very important for survey management because they may lead to changes in the population of units covered by a survey and they may be used for stratification. Dealing with these changes of characteristics in statistics in practice is not altogether simple; the nature of the complications is indicated in chapter 18.

## **13C - Register movements reflecting demographic events**

13.29 In the following paragraphs the translation of the events of the typology into the world of statistical business registers is discussed for each event in turn, followed by some remarks on information sources and on the reconstruction of events on the basis of register information. At first it is assumed that all enterprises involved in an event are within the scope of the business register. In paragraph 13.42 the consequences of dropping this assumption are briefly discussed.

### ***Translation of Events into Register Movements***

#### ***Births and deaths***

13.30 The representation of births and deaths in business registers is straightforward: it amounts to creating a new identity number and deleting an existing one, respectively. It is more of a problem, however to determine the date of birth or the "date of commencement of activities of the enterprise" (variable 3 (f) of the business registers Regulation). Is the date of the first investments the date of birth? Or is it the date on which the first product is sold? Or delivered? Or when labour is employed regularly? These dates do not necessarily equal the date of registration of a possible corresponding administrative unit at the administrative source.

13.31 The convention of this manual is that in principle the date on which the first financial commitments for investments are made should be taken. This may seem somewhat early, since actual production will take place afterwards, but this allows for the statistical coverage of all important variables, such as investments, from the beginning. This date is not considered too early since serious commitments have been made, however, from the point of view of cost-efficiency and response burden it may not always be desirable to actually collect the date of birth from the enterprise; in that case the registration date at the administrative source has to be used as a proxy. The way of measuring the date of birth should depend on user quality requirements.

#### ***Changes within an enterprise (change of ownership, restructuring within an enterprise, change of group)***

13.32 Changes of ownership and restructuring within an enterprise are events that do not impact on the demographic variables relating to the enterprise. They will, however be reflected through changes to relationships or characteristics recorded in the register.

13.33 The way a change of group is registered depends on the way the enterprise group itself is registered. If it is explicitly registered in the sense that it has its own record, the link between the enterprise and the enterprise group of origin is deleted and a link between the enterprise and the enterprise group of destination is added. If the enterprise group is not registered explicitly but only by means of links between legal units (or links between enterprises), the change of group will automatically be recorded implicitly as well.

#### ***Mergers and take-overs***

13.34 In the case of a merger all identity numbers of the enterprises existing before the event are deleted and an identity number for the emerging enterprise is created. In the case of a take-over, the enterprise that takes over the other enterprise(s) keeps its identity number, so no register creation takes place and only the identity numbers of the enterprises that are taken over are deleted in the register. The date from which the change is considered to take effect is the date on which the autonomy of decision-making, mentioned in the definition of the enterprise, is lost by the merging enterprises or the enterprise which is taken over.

#### *Break-ups and split-offs*

13.35 Since break-ups and split-offs are the counterparts of mergers and take-overs, respectively, their registration in business registers is analogous to the registration of mergers and take-overs. In the case of a break-up all identity numbers of the enterprises after the event are created and the identity number of the original enterprise is deleted. In the case of a split-off, a new identity number is only given to the split-off enterprise(s).

#### *Creation / cessation of a joint venture and restructuring*

13.36 The creation of a joint venture is reflected in a business register by the creation of a new identity number for the joint venture, similarly a cessation is reflected by the deletion of an identity number. The starting date of the joint venture is the date on which it assumes its role as an autonomous decision-making unit. Restructuring within an enterprise group, or complex restructuring, may entail any number of register creations and deletions.

### ***Information Sources***

13.37 In practice most events are detected after reception of signals from the administrative source(s) of the statistical business register. These signals concern administrative changes and, depending on the quality, meaning and relevance of the administrative information, action may have to be taken to update the business register. In some cases additional data will be needed, either directly collected or from other sources. However, in all cases cost-efficiency has to be considered. As a consequence, the policy of register updating may differentiate between small, medium and large enterprises.

13.38 Although administrative sources differ widely from country to country, a few observations may be useful, particularly concerning the birth and death of enterprises. Administrative creations and cessations do not necessarily result in births and deaths of enterprises and enterprises may be born and may die without a change in the legal unit(s) of the enterprises. Nevertheless, in most cases administrative information about new enterprises can be a good start for updating the business register in respect of register creations.

13.39 However, there is one complicating factor, the existence of dormant administrative units, particularly dormant legal units. The administrative creation of a dormant legal unit should not result in the register creation of a record for an

enterprise. If a dormant unit later commences activities the business register may not detect this. This may lead to under-coverage of enterprise births. The same is true for active legal units that become dormant and later resume activities. The issue of reactivations is discussed in chapter 14, paragraphs 14.32 - 14.35.

13.40 The situation regarding the detection of enterprise deaths is more difficult than for births. The signals received from administrative registers concerning administrative cessations are in many countries an insufficient source for updating the business register in respect of enterprise deaths, because there may not be any incentive for the unit to de-register with the administrative source after ceasing activities. This is a main cause of register over-coverage. It can be partly solved by survey feedback, particularly for larger units, which are usually more likely to be included in samples. Combining information from several sources can improve the situation.

### ***Reconstruction of Demographic Events from Business Register Information***

13.41 If one knows how demographic events can be represented by business registers in terms of creations and deletions, the question arises how data on demographic events can be derived from business registers. Let us consider which events can cause a register creation and which a register deletion. The cause of a register creation can be a birth, a merger, a break-up, a split-off, a joint venture or a restructuring. The cause of a deletion can be a death, a merger, a take-over, a break-up or a restructuring. Therefore, mere registration of creations and deletions would not allow the register to derive data on the different demographic events; more is needed.

13.42 To reconstruct a demographic event, one needs to know which enterprises were involved in the event. For birth and death this is no problem, but for the cases of concentration and de-concentration, for the creation of a joint venture and for restructuring it is necessary to register a link over time between the enterprises involved, that is, insofar as enterprises are not continued. For instance, in case of a merger the original enterprises have to be linked (e.g. by pointers on the records) to the emerging enterprise and in case of a take-over the enterprise which is taken over has to be linked to the surviving enterprise. If such links are recorded, with dates, all events can be reconstructed.

13.43 The foregoing implies that the business register is a historic register, that is, keeps track of the deleted enterprises. In fact, in a historic register units are not actually deleted, rather, "deleted" records are kept and marked as historic. Unfortunately, there are two circumstances that complicate matters. The first is that a business register may have to correct past errors. This leads to "false" creations and deletions and substantially complicates the consistent use of business registers for statistical purposes.

13.44 The second complication is caused by the fact that business registers may have some limitations in scope. For instance, according to the Regulation on business registers, the registration of NACE sections A, B and L is recommended, but not obligatory, and the (possible) registration of households in group 70.2 of section K is not recommended. This can cause a problem, for example, in case of a

merger of an agricultural enterprise (outside the scope) with an enterprise in food processing (inside the scope). It may be noted that the event itself is not affected: the event takes place independently from its possible registration in the business register. Further, the NACE code of the enterprise that results from the merger is relevant. If that enterprise is coded outside the scope of the business register, the effect on the register is the deletion of an enterprise in food processing. Since no link with the (historic) agricultural enterprise can be maintained, the only solution is to record the cause of the deletion of the enterprise from the register. If the emerging enterprise is classified into food processing, there will be a register deletion and a creation of an enterprise record. For the correct interpretation of these actions, the cause will still need to be registered. This can be generalised for all changes involving enterprises outside the scope of the business register: the causes of register changes ideally have to be recorded if limitations in the register scope play a role. This complication is, of course, resolved if all NACE sections are included within the statistical business register.

### 13D - Summary

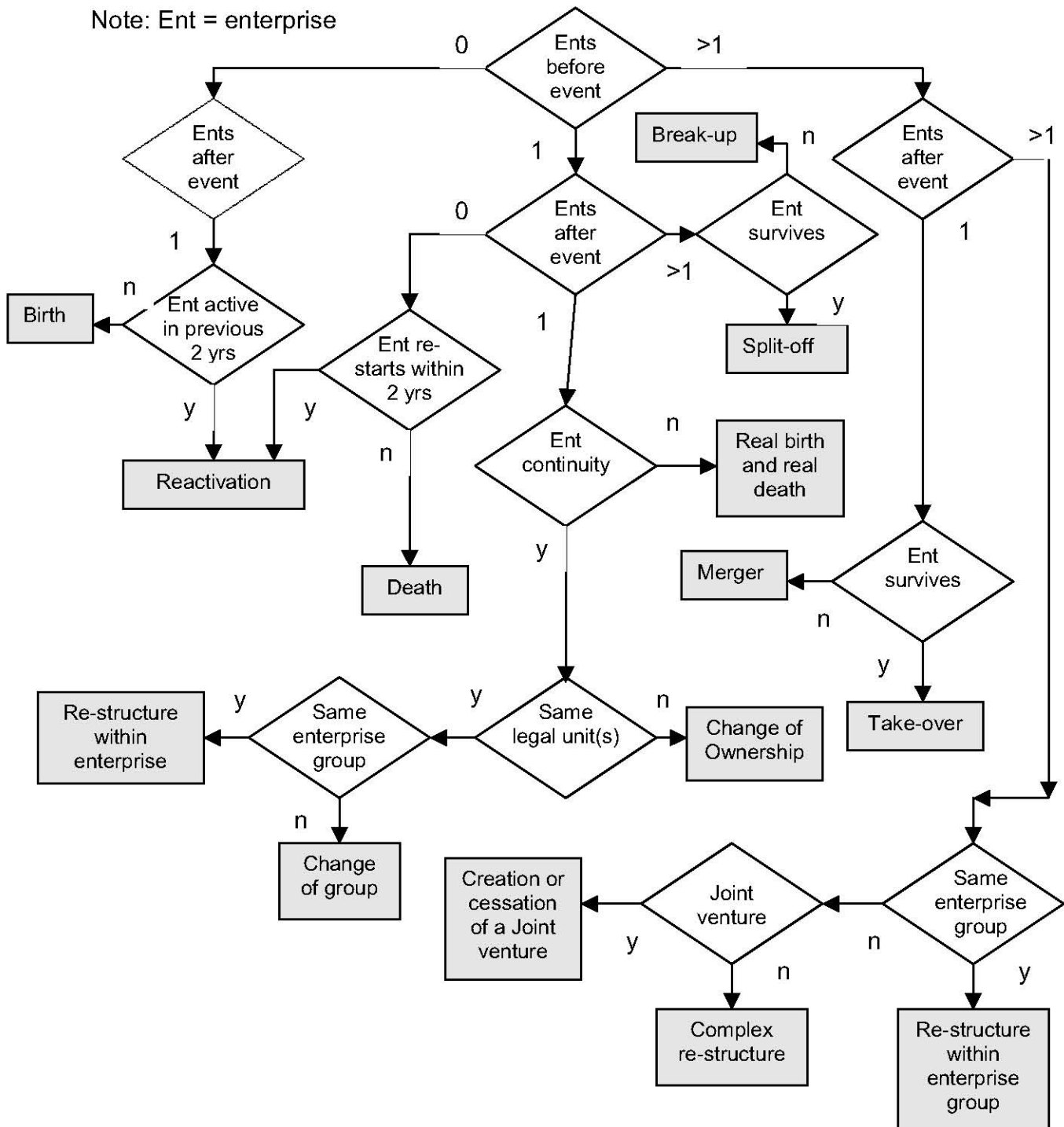
13.45 The table below contains the main demographic events for which there is demand for data, the number of enterprises involved in the events and their consequences for business registers in terms of number of register creations and deletions.

<b>Event</b>	<b>Real, observable world</b>		<b>Business register</b>	
	<i>Number of enterprises before the event</i>	<i>Number of enterprises after the event</i>	<i>Number of creations</i>	<i>Number of deletions</i>
Birth	-	1	1	-
Death	1	-	-	1
Change of ownership	1	1	-	-
Merger	n	1	1	n
Take-over	n	1	-	n-1
Break-up	1	n	n	1
Split-off	1	n	n-1	-
Creation of a joint venture	n	n+1	1	-
Cessation of a joint venture	n	n-1	-	1
Restructuring within an enterprise	1	1	-	-
Restructuring within an enterprise group	n	n	0 or more	0 or more
Change of group	1	1	-	-
Complex restructuring	n	n	0 or more	0 or more

Note: n = 2 or more

13.46 The decision matrix below is designed to help determine the type of event that has taken place, by drawing together the typology given above, and the continuity rules given in chapter 14.

Note: Ent = enterprise



### **13E - Relation to the BR Regulation**

13.47 The rules given in this chapter relating to the creation and deletion of identity numbers in business registers, particularly how they relate to real world events, are considered an interpretation of the Regulation on business registers, because they pertain to a characteristic of the Regulation. The same goes for the date of commencement of activities of the enterprise. The use of the typology of demographic events itself goes beyond the scope of the Regulation on business registers. The same goes for the recommendations to record time-links between enterprises before and after events and to record the cause of register creations and deletions whether or not they are affected by limitations in the scope of the business register.

**BUSINESS REGISTER  
RECOMMENDATIONS MANUAL**

**Chapter 14  
Continuity Rules for the Enterprise**

**Status: First Revision – March 2003**



## **CONTINUITY RULES FOR THE ENTERPRISE**

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### **14A - Introduction**

14.1 This chapter describes the continuity rules for the enterprise, that is, the conditions for keeping or changing an enterprise identity number in the business register. For instance, if the controlling legal unit of the enterprise changes, should the identity number of the enterprise also change, that is, should the record of the enterprise be deleted and another one created in the business register? If so, this would imply that it is interpreted as a death of an enterprise in the real, observable world, followed by the birth of another one, assuming no other enterprises are involved. If not, what are the necessary conditions for register deletion and creation?

14.2 The question of continuity also plays a role in situations where more than one enterprise is involved. In the case of a concentration, the distinction between merger and take-over depends on whether the unit after the event is considered the same as one of the enterprises before. Likewise, the distinction between break-up and split-off also depends on the question of continuity. For these cases the continuity rules must be chosen in such a way that consistency is maintained. For example, in the case of a concentration, the continuity rules must not lead to the conclusion that the enterprise after the event retains the identity of more than one of the enterprises present before the event.

14.3 The question of continuity can be discussed in theory and practice. In theory, the continuity rules would be derived from the definition of the enterprise and its statistical uses. In practice, the continuity rules depend on considerations of cost-efficiency, notably availability of information, costs of additional information collection for the statistical institute, and response burden effects. Theoretical considerations are given in section 14B, and practical considerations in section 14C. The consistency issue is discussed in section 14D. A particular problem of continuity in register practice is how to deal with reactivations of enterprises; this is treated in section 14E.

14.4 When reading this chapter, it should be kept in mind that where the deletion of an enterprise record is mentioned, it is recommended that the business register keeps track of the deletions by marking "deleted" records as historic. In this way, the business register greatly enhances its possible uses.

## 14B - Continuity in relation to the definition and use of the enterprise

14.5 The use of the enterprise is relevant to the question of continuity. This can best be explained by an example. If the enterprise were used exclusively for employment statistics, continuity would depend to a large extent on the continuity of employment. If it were used exclusively for financial statistics such as balance sheet items, the continuity of the assets would probably play an important role. In addition the definition of the enterprise is relevant, not only because of the fact that the use of the enterprise is related to its definition, but also because it gives an indication of the elements in which continuity can be expressed. Let us start with the definition and then look at the uses.

14.6 The Regulation on statistical units defines the enterprise as follows: "*The enterprise is the smallest combination of legal units that is an organisational unit producing goods or services, which benefits from a certain degree of autonomy in decision-making, especially for the allocation of its current resources. An enterprise carries out one or more activities at one or more locations. An enterprise may be a sole legal unit*".

14.7 This definition is followed by an explanatory note, which explains why the enterprise does not always correspond to a single legal unit but sometimes to more than one.

14.8 As to the uses, in the system of European statistics the enterprise mainly serves statistics that relate to the production of goods and services. In addition, it plays a role in the financial and non-financial accounts of the European System of Accounts (ESA). The definition is in any case in line with its main use, in that the core of the definition states that it is an organisational unit producing goods and services.

14.9 Given the definition and uses, it is logical to define continuity of the enterprise in terms of continuity of its production factors. A factor of production is any good or service used to produce an output. In economics, factors of production are normally grouped into the categories land, labour and capital. Capital includes intermediate inputs. The production factors include management, so that the element of "a certain degree of autonomy in decision-making, especially for the allocation of its current resources" is covered. The definition would also allow for the legal units to be an element to consider, but the legal units are building blocks for the enterprise and belong to the administrative world, they do not, as such, bear on the use of the enterprise. Continuity of the legal units would be an element for the operational definition of continuity rather than the theoretical definition. In view of the fact that the controlling legal unit might be considered an approximation of entrepreneurship, special attention has to be paid to this unit.

14.10 The conclusion is that, in principle, an enterprise is considered to be continued if its production factors are continued. It is discontinued if its production factors are discontinued. The production factors therefore have to be listed and weighted. The main production factors to look at, in view of their continuity, are employment, machines and equipment, land, buildings, management, and intangible assets such as goodwill. It is clear that measuring the continuity of all these factors and weighting

them can be quite difficult and costly. This might be feasible for large units, but for the large number of small units there is a clear need for more practical criteria.

## **14C - Continuity in practice**

### ***Three practical criteria***

14.11 What could be operational criteria that are easily applicable and approximate the production factors mentioned in the previous paragraph? Considering what is available in business registers, and can be updated to a large extent by using administrative sources, the following three criteria are very practical:

- **Control** - The controlling legal unit controls the production factors of the enterprise. The continuity of the management of the enterprise may be assumed to be positively correlated with the continuity of the controlling legal unit. The same may be assumed for some intangible assets.
- **Economic activity** - Economic activities are recorded in terms of NACE at the class level. Continuity of the four-digit NACE code of the principal activity may be assumed to be positively correlated with the continuity of the production factors, especially employment, machines and equipment, land and buildings. However, this criterion has to be used with care, especially for large enterprises, because a gradual shift in activities may occur that at a certain moment results in a reclassification of the enterprise. In such cases there is continuity of production factors, and the change of activity has to be ignored when considering the question of continuity of the enterprise.
- **Location** - The continuity of the locations where the activities are carried out is of course closely linked to the continuity of the land and buildings used by the enterprise. Since the clientele of an enterprise may very well depend on its locations, a positive correlation with the intangible asset "goodwill" may be assumed. The criterion is very practical if there is only one location. In the case of a multi-location enterprise, it would be practical to look at the main location, that is, at the location of the local unit with the largest number of persons actually employed. In that case, however, the criterion has to be used with care. If a change of main location is the result of a small increase in size of the second largest location, there is continuity of production factors, and the change of main location has to be ignored when considering the question of continuity of the enterprise.

### ***Application of the criteria***

14.12 Since the three criteria cover the most important production factors, the question of continuity arises only if one or more of these factors change. It is clear that if all three factors change, discontinuity may be assumed. In other cases the factors would have to be weighted in theory, but in practice one could formulate rules for each of the following six possible situations:

- *Change of controlling legal unit; (no other changes)*

14.13 This administrative change is for example very common for one-person enterprises, which have a natural person as their legal basis. That person may decide to set up a company, that is, a new legal person, to accompany the growth of the enterprise and protect his or her private assets. After retirement, the enterprise may be sold to another natural or legal person, or be given to the heirs. More generally, a change of controlling legal unit may result from a decision by the legal person(s) operating an enterprise to pass or sell their enterprise to another existing or new legal unit. It depends on the rules of the administrative register concerned whether the legal unit gets a new administrative identity number.

14.14 The changes described may very well take place without other immediate changes; all the local units where the enterprise carried out its activity may be passed on, and the same activities may be carried out.

14.15 The convention for the case described is that there is deemed to be continuity of the enterprise. Change of controlling legal units is in itself not enough to delete an existing enterprise record and create a new one in the business register.

14.16 It should be noted that in the case described, the administrative address of the enterprise may change. This variable is more closely connected with the controlling legal unit than with the enterprise itself. If the location where the persons employed actually work does not change, the change of administrative address does not have any consequence for the continuity of the enterprise.

- *Change of principal activity; (no other changes)*

14.17 Although a change of principal activity is reflected in the business register by the change of the NACE code at a certain date, in reality the change often takes place gradually, as mentioned above. In that case the production factors of the enterprise do not change abruptly, at least not all of them together, in particular not employment. If they do, this will often be accompanied by changes in the location(s) where the activities are carried out and is frequently initiated by a change of controlling legal unit.

14.18 The convention for the case of an abrupt change of principal activity resulting in a change of the four-digit NACE code is that there is deemed to be continuity of the enterprise if the controlling legal unit and the main location remain the same. Change of principal activity of the enterprise is in itself not enough to delete an existing enterprise record and create a new one in the business register.

- *Change of main location; (no other changes)*

14.19 In the case of an enterprise ceasing its activities at its main location and resuming its activities at another location within the national territory, the answer to the continuity question is not obvious. If the activities do not move far, the probability that the production factors other than land and buildings are largely continued is high. However, if the move is over a long distance, the enterprise may lose its clientele and have to start again from scratch (loss of goodwill); it would probably also experience a change in employment. It may be noted that most moves are over

short distances. Note - enterprises engaged in certain service activities are becoming less dependent on location as a factor influencing their clientele, particularly in the area of information, communication and technology (ICT) services.

14.20 The convention for the change of main location is that there is deemed to be continuity of the enterprise. Change of main location is in itself not enough to delete an existing enterprise record and create a new one in the business register.

- *Change of controlling legal unit and principal activity; same main location.*

14.21 If the principal activity (i.e. the NACE code at the four-digit level) changes and the controlling legal unit changes as well, the activity change may be interpreted as being caused by the new controlling legal unit rather than by a gradual shift in production factors.

14.22 The convention is that the combination of a change of controlling legal unit and a change of the principal activity entails discontinuity of the enterprise. There will be a deletion of an existing enterprise record and a creation of a new one.

- *Change of controlling legal unit and main location; same principal activity.*

14.23 In general the combined change of the controlling legal unit and the main location of the enterprise can be interpreted as indicating a major discontinuity of the production factors of the enterprise. Therefore, the convention is that in such cases there is deemed to be discontinuity; that is, there will be a deletion of an existing enterprise record and a creation of a new one.

14.24 There is one important special case. If a one-person enterprise expands and moves to new premises, it may very well decide to change its legal form, that is, set up a company, at the same time. This change of legal form from one-person enterprise to a company is in many countries regarded as a change of legal unit, even though the controlling person is the same. In this case the convention is to consider the enterprise to be continued.

- *Change of principal activity and main location; same controlling legal unit.*

14.25 A change of principal activity and main location rarely takes place without a change of the controlling legal unit. If it does, the convention is to consider the enterprise to be discontinued; that is, there will be a deletion of an existing enterprise record and a creation of a new one.

## **14D - Avoiding conflicting rules**

14.26 It is conceivable that the continuity rules set out above lead to contradictions if they are applied in case of take-over and split-off. These are the events involving more than one enterprise, where according to the definition of the event one enterprise is continued. That is, one of the identity numbers is continued in the business register. In the case of a take-over, a contradiction emerges if the application of the continuity rules to each of the two enterprises that exist before the

take-over lead in both cases to the conclusion that the identity number has to be maintained. How precisely may this happen?

14.27 Suppose one enterprise, E1, takes over another enterprise, E2. In addition, suppose that E1 keeps the same controlling legal unit and continues its principal activity, but moves to another main location, the main location of E2. Then, according to paragraphs 14.19 – 14.20, enterprise E1 is deemed to be continued. If E2 already had the same principal activity as E1, its principal activity and location will not change, and it is also deemed to be continued. Such a contradiction may also arise if it is E2 that keeps the same controlling legal unit, and the main location of E1 is also the main location after the event.

14.28 The case of a split-off may also cause similar contradictions, for example the case of an enterprise splitting into two enterprises, one of which keeps the controlling legal unit and the other the main location, whereas both have the same principal activity.

14.29 The cause of the contradictions is that the principal activity code remains the same for the enterprises involved in the event. However, the criterion of continuation of the principal activity code was chosen as an approximation of continuation of (part of) the production factors. In the cases of contradiction the principal activity code is apparently not a good approximation of the production factors, at least for one of the enterprises involved.

14.30 Therefore, in theory the solution of the contradictions is simple. In case of a take-over, the enterprise that exists after the event can be considered to be the continuation of the enterprise that existed before the event and whose production factors constitute the larger part of the production factors of the enterprise after the event. In case of a split-off the enterprise which exists after the event and which keeps the larger part of the production factors of the enterprise which existed before the event can be considered to be its continuation.

14.31 In practice in most situations it is clear what is "the larger part", but where this is not the case, the enterprise which has the highest continuity of employment will by convention be deemed to be continued.

## **14E - Reactivations**

14.32 One of the most difficult problems in the maintenance of statistical business registers is that of temporary cessations of enterprises. If a business register receives information on the cessation of an enterprise, and at some later date it receives information of the resumption of activity, should the enterprise after resumption be considered the continuation of the old enterprise? The problem is all the more awkward in that the information received often does not specify that the cessation is temporary; and on resumption it does not specify that the activities are being resumed rather than started for the first time.

14.33 Three situations need to be distinguished:

- Enterprises carrying out seasonal activities - An enterprise has seasonal activities if it produces for only part of the year, in the same period of each year. This is very common, for instance in tourist areas. In order to avoid paying taxes, social security contributions and the like, the enterprise may declare a cessation of activities and a resumption of activities at the administrative register(s) each year. Such cases may represent an important part of the administrative creations and cessations of a country. For enterprises that carry out seasonal activities the convention is that such enterprises retain their old identity after resumption of activities. Since possible seasonal activities can be readily identified in terms NACE classes, business registers have to take special care as to whether administrative creations with these activities correspond to real births or to resumption of activities.
- Temporary suspension of activity - An entrepreneur may suspend the activity of an enterprise because of sickness, an accident, military service, etc. Depending on the tax and social security laws, the entrepreneur may declare a suspension of activities at the administrative register(s) and make a new declaration after resumption. The convention in these cases is that the enterprise is deemed to retain its old identity number after resumption of its activities, unless the resumption takes place after 24 months. In that case the original enterprise is considered to have died, and a new one is born.
- Paralysis of production for external reasons - Paralysis of production may occur because of, for instance, the destruction of a production plant following an accident such as fire. Production is ceased and in most cases resumed after some time, but the suspension of activities may take a long time. During the period of suspension of activities the enterprise will retain some of the staff. These cases are rare. The convention in such cases is that the enterprise is deemed to retain its old identity number after resumption of its activities, unless the resumption takes place after 24 months. In that case the original enterprise is considered to have died, and a new one is born.

14.34 If it is known in advance that one of the three situations applies, the enterprise record will of course not be deleted. In such cases a variable could be recorded indicating the nature of the suspension of activities.

14.35 A birth and death only occur where a suspension of activities lasts longer than 24 months. However, due to the difficulty in obtaining accurate information and the fact that it would not be acceptable to wait 24 months to see whether a unit is reactivated, many false births and deaths may be recorded. The ways to correct these errors in business registers, and their consequences, are dealt with in chapter 18 on the treatment of errors.

## **14F - Summary**

14.36 In principle, the continuity of an enterprise depends on the continuity of its production factors: employment, machines and equipment, land, buildings, management, and intangible assets. The continuity of these factors can be measured and weighted to decide upon the continuity of the enterprise.

14.37 In practice, if complete information on the continuity of the production factors does not exist, or is not available, an enterprise may be deemed not to be continued if two or all of the following three factors change: the controlling legal unit, the principal activity carried out in terms of NACE, four-digit level, and the main location of the enterprise. There is one special case to this rule. If a one-person enterprise expands and moves to new premises, and changes its legal form, the enterprise is considered to retain its identity. If the continuity rules result in an inconsistency, continuation of employment determines which enterprise keeps its identity.

14.38 An enterprise is deemed to be continued with its old identity number if it carries out seasonal activities or resumes its activities within 24 months after temporary suspension of activities because of paralysis of production for external reasons, or sickness, accident, military service of the entrepreneur, etc.

#### **14G - Relation to the BR Regulation**

14.39 This chapter concerns the interpretation of a characteristic (the identity number of the enterprise) which has to be recorded according to the Regulation on business registers. Therefore this chapter is considered an interpretation of that Regulation.



**BUSINESS REGISTER  
RECOMMENDATIONS MANUAL**

**Chapter 15  
Demographic Changes Concerning the  
Local Unit**

**Status: First Revision – March 2003**

## **DEMOGRAPHIC CHANGES CONCERNING THE LOCAL UNIT**

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- 15B - Possible demographic events concerning the local unit
- 15C - Local unit events in relation to enterprise events
- 15D - Register movements reflecting local unit demographic events
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- 15F - Relation to the BR Regulation

### **15A - Introduction**

15.1 This chapter describes the demographic events involving local units and the movements in business registers they entail. Where appropriate, changes of characteristics are taken into account as well. The demographic events described are those that are considered relevant to users of data based on statistical business registers. These data include most economic statistics, and particularly business-demographic statistics.

15.2 Regarding the relationship with other statistical units, changes in the links between local units and enterprises are also covered in this chapter. The relationship between the demographic events at the level of the local unit and those at the enterprise level is also discussed.

15.3 As was the case for enterprises, business registers represent the existence of a local unit by the attachment of a unique identity number to a record for the local unit. The creation and deletion of records are logically linked to the creation and deletion of identity numbers, and are meant to correspond to changes in the existence of local units. Similarly, if there is no discontinuation of the local unit, its identity number should not change. The specific continuity rules, which describe under what conditions to delete and create identity numbers are given in chapter 16. This is done for reasons of transparency, i.e. the rules will be better understood after the explanation of their purpose and application in the present chapter.

15.4 This chapter is structured as follows. The possible demographic events in which the local unit is involved are described in section 15B. Section 15C relates these events to the typology of enterprise events given in chapter 13. Section 15D translates the events involving local units into register movements, under the assumption that the continuity rules are available.

### **15B - Possible demographic events concerning the local unit**

#### ***Considerations***

15.5 In the general typology of demographic events, the relevant classes were defined in terms of changes of specific statistical units. This chapter will concentrate on the effects of the events listed in the general typology on the local unit.

15.6 The main distinction in the general typology of demographic events presented in chapter 12 was between changes in existence and changes in the distribution of (combinations of) production factors. Clearly changes in existence can be applied directly at the level of the local unit, but changes in distribution are another matter.

15.7 In theory concentration can occur to adjacent local units if they belong to different enterprises which merge (or if one enterprise takes over the other). In principle, de-concentration can happen to a local unit if the enterprise to which it belongs experiences a de-concentration. But these cases are rare, and there may not be enough demand to justify the distinction of the corresponding categories of local unit events. If these rare cases are not distinguished, cases of concentration and de-concentration of adjacent local units are treated by counting a local unit death if the number of local units decreases and counting a local unit birth if the number of local units increases. The statistical effect of this may be considered acceptable.

### ***Demographic events***

15.8 The considerations mentioned above lead to the following very short list of demographic events involving the local unit.

#### *Existential changes:*

- *Birth*
- *Death*

15.9 The birth of a local unit is the emergence of a local unit, which did not exist before, and the death is its disappearance. Since the local unit is a part of an enterprise, situated in a geographically identified place, and the enterprise is a combination of production factors, the birth of a local unit amounts to the creation of a (partial) combination of production factors at a geographically identified place. A death is their dissolution.

15.10 As is the case with the birth and death of enterprises, a problem associated with birth and death of local units is the date of occurrence of these events. From what moment on is a local unit considered to be born? In principle this question can be answered by referring to the definition of the local unit. The birth takes place at the (first) moment the conditions of the definition are met, i.e. the moment there are production factors belonging to an enterprise in a geographically identified place. Section 15D gives a more practical answer to the question of the date of occurrence of birth and death.

#### *Local unit transfer.*

15.11 Every local unit is linked to one and only one enterprise. Therefore, if a link ceases to exist and the local unit is continued, that is, does not lose its identity, a new link with another enterprise will come into being. Similarly if a link from an

existing local unit to an enterprise comes into being, the link it had with the enterprise of which it was part ceases to exist. Clearly changes of links amount to transfers of local units between enterprises.

### ***Extensions***

15.12 Several extensions of the typology of demographic events are possible. First of all, it is possible to distinguish categories of concentration (merger, take-over) and de-concentration (break-up, split-off) and restructuring. If we want to be consistent with the enterprise terminology, these events should not be administered as births and deaths. As for enterprises, new local units can be divided into (real) births and other creations, and local unit cessations into (real) deaths and other cessations.

15.13 Furthermore, the demographic events of the general typology of chapter 12 may alter characteristics of local units, which keep their identity. In this respect size class and principal economic activity are particularly important. Of course changes in these characteristics may also occur without any demographic event taking place. If the short list of demographic events at the level of the local unit were to be extended with categories of non-demographic events, such changes of characteristics would be very relevant to identify. It would also be relevant to add changes in ancillary status of the local unit.

15.14 For the categories of change of size class and change of principal economic activity there is demand, not the least from statisticians for reasons of survey management. Apart from their link to changes in market orientation of the local unit, changes of ancillary status are important because they imply changes in the links between data related to the enterprise and those related to the local unit.

15.15 One other change of characteristic may seem natural to add, namely change of region. However, since a change of region implies discontinuity of the local unit (see chapter 16), this category of event can be dropped.

## **15C - Local unit events in relation to enterprise events**

15.16 Analysing the links between the demographic events identified at the level of the local unit and those of the typology at the enterprise level can be done from either side. The following paragraphs discuss what local unit events may occur if the enterprise does not experience any event, and what local unit events may occur if it does. Then the other side is discussed i.e. the implications for the enterprise level of what happens at the local unit level. Changes of characteristics and other possible extensions of the typology of demographic events will not be taken into account in the following analysis.

### ***From the enterprise level to the local unit level***

#### ***No event at the enterprise level***

15.17 If no event happens at the enterprise level it is possible that the number of local units of the enterprise increases by birth of a local unit. If the enterprise

consists of more than one local unit, one of the local units may die. If the enterprise has only one local unit, it is possible that the local unit dies, followed by the birth of another local unit, whereas the enterprise remains the same. (This follows from the continuity rules for the enterprise and the local unit; their relationship is discussed in chapter 16, section 16D) A transfer of a local unit from one enterprise to another may also occur, provided that this local unit is relatively unimportant to both enterprises concerned, so that their identity is not affected.

#### *Birth of an enterprise.*

15.18 If the new enterprise has only one local unit, which is usually the case, the birth of the enterprise entails the birth of a local unit; it is not possible that the local unit of the enterprise is transferred from another enterprise (see section 16D). If the new enterprise has more than one local unit, the situation can be more complex. Then, apart from the birth of one or more local units, local unit transfers are possible, in principle.

#### *Death of an enterprise*

15.19 If the enterprise has only one local unit, the death of the enterprise entails the death of at least one local unit (again, see section 16D). If it has more than one local unit, additional local unit transfers are possible, in principle.

#### *Merger*

15.20 After the merger none of the local units existing before the merger are linked to the same enterprise as before, since the merging enterprises lose their identity. In a typical case of merger, all local units are transferred to the emerging enterprise. However, a merger may be accompanied by some changes in the production capacity, so it does happen occasionally that one or more local units die or some are born in the event.

#### *Take-over*

15.21 Typically, the local units belonging to the enterprise which is taken over are transferred to the other enterprise. However, if the take-over is accompanied by some changes in the production capacity, additional births and deaths of local units are possible in principle.

#### *Break-up*

15.22 After a break-up, none of the local units still in existence are linked to the same enterprise as before, since the original enterprise loses its identity. In a typical case of break-up, all local units are transferred to the emerging enterprises. But again, if changes are carried through in the overall production capacity, birth and death of local units may also happen.

#### *Split-off*

15.23 Typically, the local units, which belonged to the enterprise that was split off, are transferred to the emerging enterprises. Again, if changes are carried through in the overall production capacity, births and deaths of local units may also happen.

#### *Creation of a joint venture*

15.24 If the joint venture embodies new production capacity, it will be accompanied by the birth of one or more local units. If it comprises production capacity of (one of) the original enterprises, the local unit(s) of the joint venture may be transferred from them.

#### *Restructuring*

15.25 In the heterogeneous case of restructuring, all local unit events are possible. Some event must take place at the local unit level, since at the enterprise level there is at least one change involving the identity of an enterprise.

#### ***From the local unit level to the enterprise level***

15.26 What is the connection between demographic events at the enterprise and the local unit level, viewed from the side of the local unit? The following possibilities exist:

- No event occurring to the local unit - At the enterprise level no event occurs.
- Birth of a local unit - This event may occur without any change at the enterprise level, or together with any other enterprise event except enterprise death. If the enterprise of the new local unit consists of this local unit only, the enterprise itself has in general been born as well (see also section 16D).
- Death of a local unit - This event may occur without any change at the enterprise level, or together with any other enterprise event except enterprise birth. If the local unit equals an enterprise, the enterprise in general also dies. If that is not the case, another local unit must be born (real birth) at the same moment (see also section 16D).
- Local unit transfer - This event may occur without any change at the enterprise level, or together with any other enterprise event.

#### ***Conclusion***

15.27 In short, the connection between enterprise events and local unit events is far from straightforward. All local unit events are possible even without any enterprise event. The most specific observation is that some enterprise events (birth, concentration without change in overall production capacity) imply at least the birth or transfer of local units, and some (death, de-concentration without change in overall production capacity) imply at least the death or transfer of local units. If the enterprise comprises only one local unit, things are somewhat simpler.

15.28 An extension of the typology of local unit events by adding the variations possible at the enterprise level could be considered. Similarly, an extension of the typology of enterprise events by adding the variations possible at the local unit level is conceivable. For example, the category of local unit birth could be extended by dividing it into the subcategories "birth without enterprise change", "birth caused by enterprise birth", etc. However, this is not proposed here.

15.29 If the typologies of enterprise events and local unit events are both applied, and a business register is capable of reconstructing those events, then it is also possible to provide the link between them.

## **15D - Register movements reflecting local unit demographic events**

### ***Translation of demographic events into register movements***

15.30 In the following, the demographic events that can occur to local units in the real, observable world are translated into movements in the statistical business register.

#### *Birth and death of local units*

15.31 The representation of local unit births and deaths in statistical business registers is straightforward, i.e. by creating a new record for the local unit and deleting an existing one, respectively. Problems may exist, however, concerning the determination of the date of birth, or the "date of commencement of the activities" of the local unit (variable 2 (f) of Annex II of the business registers Regulation). If the new local unit equals a new enterprise, the solution for the enterprise is adopted; that is, the date of birth of the local unit is the date of birth of the enterprise. If not, in view of the fact that by definition every local unit has one or more persons employed (even if only part-time), the convention of this manual is to take the first date on which persons are employed on the site.

#### *Local unit transfer*

15.32 The transfer of a local unit is registered by the deletion of the link between the local unit and the enterprise to which it belonged before the event, and the creation of a link between the local unit and the enterprise to which it belongs after the event.

### ***Reconstruction of demographic events from business register information***

15.33 Compared to the enterprise, it is relatively easy to reconstruct events at local unit level from information on register creations and deletions and links with enterprises. It is, however, necessary to keep historic information, including historic links between local units and enterprises, if the register is required to provide information on all past events.

15.34 Unfortunately, as was the case for the registration of enterprise events, there are two circumstances that complicate matters. The first is that a statistical business register may have to correct past errors. This leads (when on technical grounds it

may be impossible to distinguish between changes and corrections) to "false" creations and deletions, and substantially complicates the consistent use of business registers for statistical purposes.

15.35 The second complication is caused by the fact that business registers may have some limitations in scope. For instance, according to the Regulation on business registers, the registration of NACE sections A, B and L and some units in group 70.2 of section K are not obligatory.

15.36 If these activities are not included in the statistical business register, what has to be done, for instance, if a local unit transfers from an enterprise outside the scope of the business register to one within the scope, or the other way round? What if the local unit's principal activity changes from outside to within the scope? In such cases it is important to note that the event itself is not affected, i.e. the event takes place independent from its possible registration in the business register. As the registration of this event in the business register is necessarily incomplete, the solution is to record the cause of the register movement.

15.37 If the creation of a local unit is due to a change of principal activity from outside to within the register scope, it is recommended to register that the cause of the change is not the birth of a local unit but a change of activity. Some of the statistical consequences of limitations in register scope are mentioned in the chapters on the uses of business registers. It is, however, recommended to avoid these complications by including all economic activities in the statistical business register.

## **15E - Summary**

15.38 Three demographic events at the level of the local unit are distinguished: birth, death, and local unit transfer. Extensions of this typology, for instance with categories of concentration and de-concentration, are possible. The link between enterprise events and local unit events is complex, although it is more transparent when an enterprise consists of only one local unit.

## **15F - Relation to the BR Regulation**

15.39 The rules given in this chapter regarding the creation and deletion of local unit identity numbers in business registers, particularly how they relate to real world events, are considered an interpretation of the Regulation on business registers, because they pertain to a characteristic of the Regulation. The same goes for the date of commencement of activities of the local unit. The use of the local unit events that are distinguished goes beyond the scope of the Regulation on business registers. The same goes for the recommendations to record the cause of register creations and deletions and whether or not they are affected by limitations in the scope of the business register.



**BUSINESS REGISTER  
RECOMMENDATIONS MANUAL**

**Chapter 16  
Continuity Rules for the Local Unit**

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## **CONTINUITY RULES FOR THE LOCAL UNIT**

### **Contents**

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- 16B - Continuity in relation to the definition and use of the local unit
- 16C - Continuity in practice
- 16D - The links between enterprise and local unit continuity
- 16E - Summary
- 16F - Relation to the BR Regulation

### **16A - Introduction**

16.1 This chapter describes the continuity rules for the local unit, that is, the conditions for keeping or changing the identity number of a local unit. For instance, if the enterprise to which a local unit belongs loses its identity, should the identity number of the local unit also change, that is, should the record of the local unit be deleted and another one be created in the business register? If so, what are the necessary conditions for register deletion and creation?

16.2 The question of continuity can be discussed in principle and in practice. In principle, the continuity rules would be derived from the definition of the local unit and its statistical uses. In practice, the continuity rules depend on considerations of cost-efficiency, notably availability of information, costs of additional information collection for the statistical institute, and response burden effects. Contrary to the rules of enterprise continuity, there is no problem of internal consistency of the continuity rules for the local unit, because events of concentration and de-concentration are not distinguished at the level of the local unit. However, the continuity rules for the local unit have to be in line with the continuity rules for the enterprise.

16.3 The structure of this chapter is as follows. Theoretical considerations are given in section 16B, in particular regarding the importance of continuity of the location of the local unit (the term "location" is used here in the sense of "geographically identified place" as mentioned in the definition of the local unit in the Regulation on statistical units). Practical considerations are discussed in section 16C, which also briefly discusses the problem of how to deal with reactivations of local units. Section 16D describes how enterprise continuity is linked to local unit continuity.

16.4 When reading this chapter, it should be kept in mind that where the deletion of a local unit record is mentioned, it is recommended that the business register keeps track of the deletions. By marking "deleted" records as historic, the business register greatly enhances its possible uses.

### **16B - Continuity in relation to the definition and use of the local unit**

16.5 The definition and use of a statistical unit are relevant to the question of continuity. The Regulation on statistical units defines the local unit as follows: *"The*

*local unit is an enterprise or part thereof (e.g. a workshop, factory, warehouse, office, mine or depot) situated in a geographically identified place. At or from this place economic activity is carried out for which - save for certain exceptions - one or more persons work (even if only part-time) for one and the same enterprise".*

16.6 This definition is followed by explanatory notes, which include explanations of how to deal with persons working at more than one place, and how the unit is delineated. For example, if a public highway runs through a site, the site is considered one local unit, and a single local unit may be spread over several adjacent administrative areas. The Regulation on business registers supplements the definition by stating that "the local unit is dependent on an enterprise". As was explained in chapter 8, which describes operational rules for the local unit, under certain conditions the activities of a local unit are not strictly limited to those carried out at the location of the local unit.

16.7 The local unit is not a simple relationship between the entities "enterprise" and "geographical place" or "location", it corresponds to a tangible part of the enterprise. The local unit consists of production factors combined to produce goods or services, as is the case for the enterprise, but it is not necessarily an organisational unit, and its clientele may be another part of the same enterprise. The production factors include employment, with a minimum of one person part-time. The local unit need not benefit "from a certain degree of autonomy", as the enterprise does. As a consequence the data which can be collected for the local unit may be more limited.

16.8 In the system of European statistics, the local unit mainly serves regional statistics relating to the production of goods and services, or employment. The unit is primarily used in respect of variables that can be linked with geographically identified places. The main variables relate to employment and activity.

16.9 Given the definition and uses, it is logical to define continuity of the local unit in terms of continuity of location and production factors, with emphasis on production factors that can be readily identified at the level of the local unit, that is, land, buildings, and in particular employment. The continuity of the enterprise is also relevant to the continuity of the local unit since the local unit is dependent on the enterprise. This dependence is important because the local unit itself is not, like the enterprise, an organisational unit with a certain degree of autonomy. A further requirement is that if the local unit and the enterprise happen to be the same, their continuity rules should lead to compatible results.

16.10 As was the case for the enterprise, the importance of the different continuity criteria has to be determined. It stands to reason to put much weight on the criterion of continuity of location, but this can not be an absolute condition, because a move over a short distance of a local unit should be possible without loss of identity. If the same activity is continued with the same employment at a short distance from the old location, the move generally does not interrupt the local or regional function of the local unit.

16.11 On the other hand, a move over a long distance would entail identity loss. In any case, when considering the criterion of continuity of location, it should be kept in mind that the location is not an administrative address, but the actual place of the

factory, warehouse, office, depot, etc. If the premises remain the same, the location is considered to remain the same, even if the administrative address changes.

## **16C - Continuity in practice**

16.12 In view of the weight of the criterion of continuity of location and the relevance of the distinction between short and long distance moves, the following paragraphs are structured accordingly. First local unit continuity is discussed if the location does not change, and then if the location changes over a short distance (if the location changes over a long distance, continuity will be lost). This is followed by a short discussion of the special case of reactivations.

### ***The location does not change***

16.13 If the location stays the same, operational rules are needed for the continuity of production factors. Operational rules for the continuity of the enterprise on which the local unit depends are given in chapter 14. As was the case for the enterprise, the criterion of the economic activities carried out could very well be applied. It may be assumed to be positively correlated with the continuity of the production factors. In practice the criterion of continuity of economic activities carried out can be applied by considering the principal activity in terms of NACE at the four-digit level.

16.14 Although economic activity to a certain extent reflects all production factors including employment, the criterion of continuity of employment can be applied in addition, to give it a higher weight. A practical convention would be that employment is deemed to be continued if 50 percent or more of the persons employed by the local unit continue to work at or from the same location, and deemed to be discontinued if the percentage is below 50. In applying this convention, care should be taken in cases where the number of persons employed at the site is very low (particularly where it is less than two), or where working proprietors are included in the site employment and there is a change in ownership.

16.15 If all three relevant factors (i.e., enterprise continuity, principal economic activity, and employment) change, then the local unit is considered to lose its identity. If none of these changes, the local unit is deemed to be continued (provided the location is the same). If one or two factors change, the factors would have to be weighted, but in practice one can formulate rules for each of the following six possible situations.

- Change of enterprise (no other changes) - The convention for this case is that there is deemed to be continuity of the local unit. As a consequence, the local unit is considered to be transferred from one enterprise to another. The situations in which this can occur are described in chapter 15.
- Change of principal activity (no other changes) - In this case, if employment is mainly (at least for 50 percent) the same, it is improbable that the change of principal activity takes place abruptly, although the principal activity code changes at a particular moment. The convention for this case is that there is deemed to be continuity of the local unit.

- Change of employment (no other changes) - Since the location is the same, and the principal economic activity as well, employment is presumably the only production factor to change. Considering the fact that the enterprise is continued, it is reasonable to adopt the convention that in this case the local unit is deemed to be continued.
- Change of enterprise and principal activity, same employment - If both the enterprise and the principal activity change, the local unit would not merely be transferred to another enterprise, but it is also, at least, reorganised. Even though the larger part of employment is still the same, the local unit is deemed to lose its identity.
- Change of enterprise and employment, same principal activity - If both the enterprise and employment change, the local unit is, again, not just transferred, but also, at least, reorganised. In this case the local unit is deemed to lose its identity.
- Change of principal activity and employment, same enterprise - The fact that the enterprise is the same is not enough to consider the local unit the same if the main production factors, notably employment, have changed. The local unit is deemed to lose its identity in this case.

16.16 The conclusion is that at least two of the three factors have to change for the local unit to lose its identity. If only one factor changes, it retains its identity, provided the location remains the same.

### ***Move over a short distance***

16.17 If a local unit moves over a short distance, some important production factors (land, buildings) have changed. If any of the three factors mentioned above (enterprise, principal economic activity, and employment) changes as well, the local unit is deemed to lose its identity. If none of the three factors change, it is deemed to retain its identity.

This is clear enough, but what is a short distance? Rather than defining a distance, it would be very practical to apply a regional classification: a move outside the region of the local unit would imply loss of identity, a move inside not. That is, if the new location is within the same region as the old one, the local unit retains its identity if the enterprise, the principal economic activity, and employment remain the same, otherwise identity is lost. In that case the regions should be defined as the smallest administrative areas as mentioned in the Annex, section II B 2 of the Regulation on statistical units. These are equivalent to NUTS 5 areas. Another possibility is to apply travel-to-work areas where these are in use in a particular country.

### ***Reactivations***

16.18 As was the case with the enterprise, a practical problem may exist in respect of reactivations. If a local unit ceases and resumes its activities, the business register has to decide whether the old identity number is reused. In analogy to the enterprises, the convention of this manual is that the local unit is deemed to be

continued (i.e., it retains its old identity number) in case it carries out seasonal activities or resumes its activities within 24 months after temporary suspension of activities because of paralysis of production for external reasons, or sickness, accident, military service of the entrepreneur, etc.

## **16D - The links between enterprise and local unit continuity**

16.19 The enterprise and the local unit have their own continuity rules. As a consequence, it is conceivable that an enterprise is continued whereas one or more of its local units are discontinued, or that it is discontinued whereas one or more of its local units are continued. In principle this does not result in any inconsistency, provided the differences between the concepts used are clear. It is, however, useful to examine the case where an enterprise equals a local unit before or after the event, and see what situations to expect if the continuity rules as proposed are applied. After all, this is the most common case.

16.20 Suppose an enterprise is born and comprises one local unit. Is it possible that the local unit existed already and keeps its identity, so that it experiences a transfer to the new enterprise? No other enterprises are involved, otherwise the event would not be the birth of an enterprise but rather a split-off, restructuring, etc. So the local unit which possibly existed at the location of the new enterprise must have belonged to an enterprise which died at the event. Since the continuity rules of the enterprise require that at least two of the three criteria (controlling legal unit, principal economic activity, and location) change, and the old and the new enterprise have the location in common, they must differ in controlling legal unit as well as in principal economic activity.

16.21 Now consider the local unit. It belongs to different enterprises before and after the event, and, as shown above, its principal economic activity before and after the event is different. Therefore it can not be the same local unit. The conclusion is that the birth of an enterprise comprising only one local unit implies the birth of that local unit.

16.22 A similar reasoning applies if an enterprise comprising only one local unit dies. It follows that, at its location, the principal economic activity is not continued (otherwise continuation of the location and principal activity had resulted in enterprise continuation). For the local unit this implies that at least two of the three criteria for continuity, namely enterprise continuity and continuity of principal activity, are not met, so it loses its identity. The conclusion is that the death of an enterprise comprising only one local unit implies the death of that local unit.

16.23 The opposite also generally holds, though not exclusively. It is possible that a local unit loses its identity without the enterprise losing its identity, even if the latter consists of only one local unit. The principal economic activity and the employment of the local unit may have changed, but these conditions are not sufficient for the enterprise to lose its identity. If the enterprise keeps the same controlling legal unit, it remains the same as long as the location remains the same. The conclusion is that a local unit can discontinue, followed by the creation of a local unit at the same location, whereas the enterprise remains the same.

## **16E - Summary**

16.24 If the location is the same, the continuity of production factors, in particular of employment, and the continuity of the enterprise to which the local unit belongs are in principle the criteria for continuity. In practice a local unit which does not change location is deemed to lose identity only if two or all of the following three factors change: the enterprise identity, the principal activity in terms of NACE at four digit level, and at least 50 percent of the local unit employment.

16.25 If a local unit moves within a region defined at the local level or within a travel-to-work area, it keeps its identity if none of the three factors mentioned above changes. Otherwise it loses its identity. If a local unit moves outside the region or travel-to-work area, respectively, it is deemed not to be continued.

16.26 Furthermore, a local unit is considered to be continued if it resumes its seasonal activities or resumes its activities within 24 months after temporary suspension due to paralysis of production for external reasons, or sickness, accident, military service of the entrepreneur, etc.

16.27 An analysis of the continuity rules results in the following conclusions. The birth of an enterprise, which comprises only one local unit, implies the birth of a local unit, and the death of such an enterprise implies the death of a local unit. However, a local unit equalling an enterprise can discontinue, followed by the creation of another local unit at the same location, whereas the enterprise may remain the same.

## **16F - Relation to the BR Regulation**

16.28 This chapter concerns the interpretation of a characteristic (the identity number of the local unit), which has to be recorded according to the Regulation on business registers. Therefore this chapter is considered an interpretation of that Regulation.

**BUSINESS REGISTER  
RECOMMENDATIONS MANUAL**

**Chapter 17  
The Treatment of Changes to  
Characteristics**

**Status: First Publication – March 2003**



## THE TREATMENT OF CHANGES TO CHARACTERISTICS

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### 17A - Introduction

17.1 This chapter complements the previous six chapters, which concentrate on the treatment of changes that have a direct impact on economic demography. This chapter focuses on the treatment of non-demographic events, and hence covers changes to characteristics rather than to units. In the context of this chapter, the term “characteristic” is used to refer to a non-demographic variable.

17.2 This chapter considers the uses of statistical business registers, and their requirements regarding the updating of characteristics. It also interprets the rules regarding the minimal periodicity for the updating of characteristics given in the Regulation on statistical business registers. Recommendations are formulated under the assumption that the register is mainly used for statistical purposes.

17.3 Changes to characteristics can either be a reflection of real world events, in which case they are regarded as updates, or they can amend information that was previously wrong, in which case they are regarded as corrections. In this context the term “wrong” refers to data that are not in accordance with the view of reality agreed with users as the standard for the register. The first type of change is considered in this chapter, whereas the second is covered in chapter 18.

### 17B - Requirements regarding changes to characteristics

17.4 Chapter 10 defines the quality of statistical business registers in terms of user needs. This approach should also be followed when determining the nature, frequency and periodicity of changes to characteristics, as there is little point in using effort and resources to update characteristics that are of no interest to users.

17.5 In chapter 3, five distinct uses of statistical business registers were defined:

- A tool for the detection and construction of statistical units;
- A tool for the preparation and co-ordination of surveys, and for grossing up survey results;

- A source of information for statistical analysis of the business population and its demography;
- A tool for the mobilisation of administrative data;
- A dissemination tool.

17.6 The treatment of changes to characteristics impacts to some extent on all of these uses, though mainly on the second and third items in this list. These are the main uses considered in this chapter, and their associated user needs help to define the recommendations in the following paragraphs.

17.7 In addition to the needs of users, there are four further factors that influence the policy on changes to characteristics in statistical business registers:

- **Type of characteristic** – There are two distinct types of non-demographic characteristics, those relating to identification variables, and those relating to stratification variables. Within each type, user requirements are likely to vary depending on the individual characteristic. For the sake of completeness, a third type should also be considered. These are specific to legal units, and are referred to as “other variables” in the typology of register variables presented below.
- **Timing of the change** - Users may not necessarily want all changes to be reflected on the register as soon as they are notified. This reflects a tension between the accuracy and consistency elements of quality.
- **Source of information** – Characteristics may be updated from administrative sources, or statistical sources (e.g. surveys), or a combination of the two. The availability of data of suitable quality largely determines updating policies.
- **Size of the observation unit** - Large units are generally more likely than smaller units to be included in survey samples, and are likely to have more of an impact on survey results and statistics based on the register, therefore different policies may be needed for different size units.

17.8 The impact of each of these four factors on the policy regarding changes to characteristics in statistical business registers are considered in detail in the remainder of this chapter, along with recommendations on the frequency of updates.

## **17C - Types of characteristics**

17.9 The variables required to be recorded in statistical business registers, and the units to which they relate, are stated in the annex to the registers Regulation. They are defined and discussed in detail in chapter 5, where they are also grouped by type. The following table (taken from chapter 5) summarises the five different types. The categories are not mutually exclusive, e.g. legal form can be used as an identification, stratification or demographic variable depending on the data requirement. Variables that are optional in the registers Regulation are shown in brackets. The codes given (e.g. 1a, 3e etc.) are those used in the Regulation.

	<b>Legal unit</b>	<b>Enterprise</b>	<b>Local unit</b>
<b>Identification variables</b>  Identity number + external identity numbers Name and Address Legal form	1a 1j, 1k 1b 1f	3a	2a 2i 2b
<b>Stratification variables</b>  Principal activity Secondary activity Ancillary activity Size: persons employed Size: turnover Size: net assets Geographical location		3c 3d  3e 3h (3i)	2c (2d) 2k 2e  2h
<b>Demographic variables</b>  Date of creation Date of cessation	1d 1e	3f 3g	2f 2g
<b>Relationship variables</b>  Unit controlling	(1g), (1h)	3b	2j
<b>Other variables</b>  Requirement to publish annual accounts Character of public undertaking	1c 1i		

17.10 Identification variables, stratification variables and "other" variables, are considered to be characteristics for the purposes of this chapter. Demographic and variables are covered in chapters 12 to 16, relationship variables are considered in various chapters including 19 and 21.

### ***Identification Variables***

17.11 Rules regarding changes to identity numbers for enterprises and local units are set out in chapters 14 and 16 respectively. Identity numbers for legal units and "external identity numbers" are generally outside the control of those responsible for statistical business registers, therefore the aim can be to record changes as soon as

possible after they happen, or regularly several times per year. Previous identity numbers should be recorded whenever possible, as this allows data to be linked through time. Such changes are normally associated with administrative creations and deletions, which, by definition, result in new administrative units rather than changes to existing ones.

17.12 Changes to names and addresses should normally be reflected in statistical business registers as soon as they are notified. This is because these details are used for mailing survey forms, and for geographical analyses of register data. For both of these purposes, up to date information is vital in order to meet user needs.

17.13 It should, however, be remembered that changes to one unit do not necessarily imply changes to other linked units. For example, a change in the address of a legal unit may be for purely administrative purposes, and may not mean that the enterprise has changed location. Similarly, for an enterprise with more than one legal unit, a change in the name of one of those legal units will not necessarily mean that the enterprise name should change.

17.14 For operational purposes, where an enterprise has just one legal unit and one local unit, all of these may or may not have the same name and address. Before assuming that a change to the details of one of these units should be applied to all three, it must be checked if e.g. the legal unit address is used for administrative purposes and the local unit address for statistical purposes. For more complex structures, more checks are needed.

17.15 Where other contact details, such as telephone or fax number, e-mail address etc. are stored, these should generally be updated as soon as a change is notified. There is again, however, the need for care when dealing with larger or more complex enterprises. There may be a need to record details of several different contacts for different purposes, e.g. the person supplying employment returns may be different to the one providing financial details. In this case there is a need to store multiple sets of contact details. This can cause problems for register maintenance, so one simple solution is to allow users the option to record details of their specific contacts within the business register, but ask that, in return, any users taking advantage of this facility should maintain any specific contact details themselves.

17.16 Whilst changes to other identification variables should generally be recorded on the register as soon as they are notified, changes to legal form may cause more problems. This is because legal form can also be used as a stratification variable, therefore any changes can affect the consistency of survey samples and populations. This is particularly true where large units change their legal form. An example of this is where a particular activity previously carried out in the public sector, (e.g. in areas such as health or education) is transferred to the private sector. This would have a large impact on statistics on the market economy, and such a change may need to be treated and/or timed in a way that minimises the disruption to statistical series.

17.17 Some changes to legal form may be accompanied by name changes, for example, if a previously unincorporated enterprise becomes a limited liability corporation, it would normally be expected to add certain initials to its name to

indicate this (e.g. “GmbH” in Germany, “SA” in France or “Ltd” in the United Kingdom). This allows the possibility of a crosscheck between name and legal form, which can help to detect quality problems.

### ***Stratification Variables***

17.18 Stratification variables fall into three distinct groups, activity classification, size and location. These can, by definition, affect the probability of a unit being included in a particular survey. It is therefore important to consider whether to update these variables as soon as new information is received, and risk increased volatility in survey samples and populations, or to hold them until a certain point in the annual cycle of surveys where the impact of changes on the consistency of results would be reduced.

17.19 Information received on changes in the various activities of a particular unit may prompt a change to the principal or secondary activity code, or ancillary activity marker for that unit. These changes can be sudden, e.g. due to a change in management policy for the business concerned, or gradual, where the balance of activities has shifted over time. In such cases, the explanatory notes to NACE Rev.1.1 recommend a stability rule whereby “the secondary activity should exceed the activity to which the unit is classified for two years before the classification is changed”. This rule helps to reduce movements in business demography, which are no more than temporary phenomena, or statistical artefacts. This principle should be applied in statistical business registers, where it is also useful to include the last known activity as a supplementary variable in order to manage this stability rule.

17.20 Changes to size variables (persons employed, turnover and net assets) can have a considerable effect on the consistency of survey samples and populations, therefore there is likely to be a need to discuss the timing of updates with register users. Large changes are often an indication that some sort of restructuring is taking place within the business, and could be a trigger for further investigation, possibly in the form of profiling.

17.21 For businesses engaged in certain activities, e.g. tourism, there is likely to be a seasonal pattern to the number of persons employed (and possibly also to net assets or short period turnover data). This means that data from a particular point in time could give a misleading view of the size of a business. It is therefore recommended that annual averages should be held for these variables. Some users may argue, however, that this policy restricts the use of the register for detecting short-term trends, and particularly the early detection of turning points. If this is an issue, the simplest solution is to store both current values and annual averages.

17.22 The stratification variable “location” is only compulsory for local units, but many countries have found it useful to record the location of legal units and enterprises as well. Changes to location may, in some cases, result in the deletion of one unit, and the creation of another. The rules regarding continuity of units when location changes are set out in chapter 14 (for enterprises), and chapter 16 (for local units). Legal unit continuity rules are generally country-specific, and outside the control of the national statistical institute.

17.23 It is important to be aware that a change in the location of a legal unit does not necessarily imply a change in the location of the enterprise. For example, the official address of a business may change from that of one accountant to that of another, but the site(s) where activity is carried out will probably remain the same.

17.24 When stratification variables are updated it is useful to record the date of the change, the source of the new information, and the previous value. These are very valuable pieces of information to help assess the quality of variables, and to audit the change process. Recording both the source and date of a change can be a way of determining the circumstances under which it can be overwritten by future changes from other sources. This is explored further in paragraphs 17.30 – 17.34.

### ***Other Variables***

17.25 The variables "requirement to publish annual accounts" and "character of public undertaking..." are specific to legal units, and may be determined or inferred from the legal form of the business. Based on the assumptions that the legal unit is not used for sampling purposes, and that these variables will rarely be considered in their own right in a sampling scheme, they should be updated as soon as new information is received.

## **17D - Timing of changes**

17.26 The traditional view of the quality of statistical business registers focussed on the need to reflect the real world as accurately as possible. This implies that changes should be implemented on the register as soon as they are known. In line with the ISO definition, quality of registers is now defined in terms of their ability to meet user needs (see chapter 10). Accuracy may be important to some register users, but consistency can be equally important to others, particularly those producing and using short-term statistics, and those wanting coherent short-term and structural data.

17.27 Thus two groups of users can have conflicting demands regarding the timing of changes, some wanting immediate updates, and others wanting updates held, to be scheduled for particular times when their effects on the coherence of data will be minimised. As discussed in chapter 10, the obvious solution is to hold two versions of key variables, one that is updated whenever new information is received, i.e. the "current" version, and one that remains constant for an agreed period, i.e. the "frozen" version.

17.28 If this approach is followed, the frozen version should be updated from the current version at times, or in specific circumstances agreed with users. This update will generally tie in with the statistical survey cycle, so it could be annual, generally between the end of one survey year, and the start of the next. This solution has two main advantages for survey managers:

- The survey samples and populations remain relatively stable over the survey year, with the only significant changes being due to births and deaths of units

(and possibly corrections of errors). This allows short-term surveys to measure changes in economic variables more efficiently.

- The likely impact of the annual updates can be modelled beforehand by comparing the current and frozen data. Obviously the closer to the time of the update, the more accurate the assessment of impact is likely to be.

An alternative approach is to have frozen monthly or quarterly sampling frames, from which all surveys relating to that period are drawn. This increases coherence between surveys, but raises problems concerning the treatment of births and deaths.

17.29 Storing two versions of a variable allows analyses of register data to be targeted more closely towards user needs, though care must be taken to avoid confusing users with different data sets for what appears to them to be the same point in time. Key register users, particularly those with direct access to the register, need to be trained so that they are aware why the two versions exist, and why they might be different for certain units at certain times.

## **17E - Sources of information**

17.30 Statistical business registers can be updated from a wide range of different sources. The average number of sources used in European Union Member States is slowly increasing; it is currently around six, assuming all statistical surveys are counted as a single source. Several sources may provide values for register characteristics, and where this happens, there will always be a degree of conflict between the sources. This raises the question of which source to use.

17.31 The best way to answer this question is to start gaining a thorough understanding of each source, covering issues like the methods of data collection and validation, the time of collection, and the relative importance assigned to that variable by the source. This understanding then allows the sources to be prioritised, either for all units, or for different categories of units depending on one or more other criteria. The data from different sources can also cover different periods, e.g. calendar year or accounting period, which further complicates the issue.

17.32 Key variables for particular sources are likely to be of higher quality than secondary variables, thus turnover from a value added tax source, and employment from a wage or income tax source should, in theory, be of good quality. In practice, however, there may be an incentive for businesses to make false declarations, e.g. to give falsely low income, turnover, asset or profit figures in order to reduce tax liability.

17.33 Once priorities have been determined for a certain characteristic, the next step is to devise a way to apply them to register updating procedures. This can be done in several ways. Perhaps the most reliable method is to store a source code and date with the characteristic, and to implement algorithms to determine which combinations of source code and date can overwrite another. The date is important here, because it may be decided that data from a lower priority source should overwrite that from what would normally be seen as a better source, if it is significantly more recent.

17.34 Other possibilities are to use quality flags determined by date and source, or to update the register with data from all sources in reverse priority order, so that the highest priority data are added last, thus overwriting those from lower priority sources. This last method is not very successful, however, if the register is updated from different sources at different points in time.

## **17F - Size of the observation unit**

17.35 The size of the observation unit may have an impact on the policy regarding changes to characteristics. Automatic updating rules are generally easier to apply to smaller, less complex units. Similarly changes to the characteristics of these units are not likely to have a significant impact on register users.

17.36 Large and complex units are, however, likely to be more problematic. Changes to such units have more of an impact on users, so there is more of an incentive to ensure that they are correct. This can be done by comparing data from a range of sources to see if they are consistent, or by contacting the unit concerned to validate the change. Both approaches can be considered to be forms of profiling. This is a method of checking both the structure and characteristics of units, and is generally only applied to large and complex businesses. Profiling concepts and methods are discussed further in chapter 19.

## **17G - Frequency of updates**

17.37 Article 5(1) of the business registers Regulation states that:

*"The following shall be updated at least once a year:*

*(a) entries to, and removals from, the register;*

*(b) the variables ... [1b and 1f];*

*(c) for units which are the subject of annual surveys, the variables.... [3b, 3c, 3d, 3e and 3h] .... in so far as those variables are included in the surveys.*

*As a general rule, information obtained from administrative files or annual surveys shall be updated annually, other information being updated every four years."*

17.38 Thus, all characteristics for all units must be updated at least once every four years, and key characteristics, such as stratification variables at the enterprise level, should be updated annually if the enterprises are included in annual surveys. In practical terms, this should cover all statistically significant enterprises

17.39 The provisions of this Article should be viewed as a minimum requirement. Units that are considered to be volatile, or that are regarded as key units by users, should have their characteristics updated more frequently. Examples of such units include those that are large and complex, and those classified to particular economic activities where units are known to evolve rapidly or change frequently.



## **17H - Summary**

17.40 In this chapter we have discussed the differences between changes to characteristics and the correction of errors. The needs of users are the key to defining the policy regarding the recording of changes, particularly concerning the timing of changes. Finally, different factors affecting the treatment of changes have been explored, with reference to the specific provisions on this subject in the business registers Regulation.

## **17I - Relation to the BR Regulation**

17.41 This chapter concerns the updating of a range of compulsory and optional variables specified in the Regulation on business registers. Therefore, insofar as it recommends policies for updating these variables, this chapter should be considered an interpretation of that Regulation.

**BUSINESS REGISTER  
RECOMMENDATIONS MANUAL**

**Chapter 18  
The Treatment of Errors**

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## THE TREATMENT OF ERRORS

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- 18G – Sources for the Correction of Errors
- 18H – Summary and Recommendations
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### 18A - Introduction

18.1 Statistical business registers are large databases holding records of units and their characteristics, relationships and history. In theory, they could provide a perfect image of the outside world. They would contain no errors, as these would be corrected the moment they occur. In reality, however, it is impossible to avoid errors and incorrect information in a business register, and it may not even be desirable, for reasons of consistency (which are explored further in chapter 10), for the register to be perfectly accurate at a particular point in time.

18.2 As discussed in chapter 17, changes to information in business registers can either be a reflection of real world events, in which case they are regarded as updates, or they can amend information that was previously wrong, in which case they are regarded as corrections. The first case is dealt with in chapter 17, whereas the second case is the subject of the present chapter, and is referred to as the treatment of errors. The following paragraphs define what is meant by the terms “wrong” and “errors”, and formulate recommendations on how errors should be identified and treated.

### 18B - Definition of Errors

18.3 As stated above, statistical business registers reflect an imperfect image of reality. There are various reasons for the differences between this image and the real world. The sources of information used to maintain and update the register will generally contain irregularities of some sort. The register may be subject to certain lags in the recording of real world events, or it may have gaps due to the lack of adequate sources for certain types of information.

18.4 If these distortions of the real world are considered to be acceptable by users of the register, they should not be considered to be errors. If they are not acceptable, procedures or sources need to be changed or improved. This leads to the following definition of errors:

*An error in a statistical business register is a difference in the information presented*

*in the register and the information as it should be, according to a chosen image of the real world produced and maintained by an accepted instrument and documented procedures.*

18.5 To translate this rather theoretical definition into more operational terms it is necessary to have a precise description of the chosen image (i.e. what the register should depict) and a complete and transparent set of procedures to produce and maintain this image. It is clear that the definition of errors will vary according to the types of users, the sources and the operational procedures of different registers.

## **18C - Types of Errors**

18.6 A statistical business register is meant to be an image of the real world, but this world is a very complex one. There are, therefore, many ways in which errors can occur. It is possible to define different types of errors.

### *Errors in existence*

18.7 This type of error is due to false information regarding the demographic variables (date of creation and date of cessation) for a particular unit. There are two categories of existence errors:

- Units are recorded as economically active, but are not yet, or no longer, active in the real world. This results in over-coverage, and can lead to response problems for statistical surveys based on the register.
- Units are economically active but are not present in the register. This type of error results in under-coverage, and can also adversely affect the quality of register outputs.

### *Errors in identification variables*

18.8 Errors in unit identification numbers should not generally be possible, though duplication, and incorrect links are, of course, possible. These are dealt with in paragraphs 18.10 - 18.12 below. Errors in names, addresses, telephone numbers etc. can hamper data collection due to problems locating and contacting the units. Errors in names and addresses also impede the use of statistical business registers as tools to link and co-ordinate data from different sources. Errors in legal form are similar in some respects to the errors in stratification variables considered in the next paragraph. They can affect the inclusion of units in certain register outputs, and in certain strata of survey samples.

### *Errors in stratification variables*

18.9 This type of error includes errors in variables such as the economic activity code, size-class (number of persons employed, turnover or net assets) or the geographic area in which the unit is situated. These errors result in inefficient sampling and strata allocation for surveys based on the register, and will be, to some extent, detrimental to population estimates derived from the register.

### *Errors in units*

18.10 This type of error concerns the delineation of statistical units (particularly the enterprise). It may result in duplication, or other errors in data concerning the number and size of units. It can also affect the measurement and allocation of variables.

### *Errors in links and relationship variables*

18.11 To reduce the response burden associated with statistical surveys, increasing use is made of data available from administrative sources. These data can be used to update statistical business registers, or to supplement, or even replace statistical data collection. Statistical business registers play a vital role in accessing and using data from administrative sources, mainly by holding information on links between administrative and statistical units.

18.12 In countries where there are no unique identifiers, errors will occur in identifying and linking units. These errors generally arise because, due to the volume of data, the linking is done in an automated way. Provisions should be made to reduce the risk of wrongly linking important units to an absolute minimum. Indicators on the quality of linking can help identify potential problems, e.g. they can identify where businesses that are small according to the statistical business register, are linked to ones that are large according to the administrative source, or vice-versa. Such size mismatches are generally good indicators of linkage problems.

## **18D - The Micro and Macro Approaches**

18.13 In the treatment of errors, a distinction can be made between what we will call the micro approach and the macro approach. The micro approach focuses on errors at the level of the individual business. The errors are detected at this level and correction takes place according to fixed procedures. The detection of errors can be based on feedback from register users, or a specific survey of certain types of businesses in the register. The micro approach is often expensive, especially when applied to the full scope of the register, but the improvement in the total quality of the register is substantial.

18.14 The macro approach entails the detection and treatment of errors at the aggregate level. For example, estimates of the total number of non-active businesses may be derived from samples. The macro approach is cheaper to implement than the micro approach, but the improvement in quality for individual units is much lower. Only the units included in the sample are checked.

18.15 The choice between the micro and macro approaches depends on:

- User needs relating to specific data items or units on the register
- The main uses of the register - purely statistical, or administrative and statistical
- The available resources (finance and staff)

18.16 Often a combination of the micro and macro approaches will be the most appropriate solution.

## **18E - The Treatment of Errors for Different Users**

18.17 The treatment of errors should take into consideration the different types of surveys based on the register. The solutions acceptable for structural surveys may be different to those appropriate for short-term surveys. Where different surveys demand different solutions to the treatment of errors, it may be useful to record details of errors including dates of detection, occurrence and correction, sources and types. This allows register users the possibility to access both corrected and uncorrected data according to their needs.

18.18 One approach is to set up a specific database to record these details. The structure and functionality of such a database should depend on the procedures agreed for treating errors. This database should be closely linked to the business register, or even an integral part of that register. The following variables should be recorded:

- The original value (the wrong one)
- The new value (the correct one)
- The date of detection
- The date of occurrence
- The date of correction
- The source of the corrected value
- The mode of correction (interactive or batch; in the case of interactive correction it may be wise to record the corrector as well).

It may also be useful to record a date of confirmation for variables that may be mistaken for errors because they look unusual or out of date, but have been investigated and confirmed as correct.

18.19 If possible, the type of error should also be recorded for further analysis. The inclusion of all this information in the database makes it possible to recreate the situation on the register at any given moment, allowing users to ignore corrections if necessary. The inclusion of additional variables in the business register has clear disadvantages, more variables make register maintenance more complex and mean more opportunities to make errors, but the advantages of at least partly implementing this solution should more than outweigh the disadvantages.

18.20 This approach is consistent with the proposal in chapter 17, paragraphs 17.26 - 17.29, concerning the storage of "current" and "frozen" versions of key register variables. A common approach could be adopted to cover both the treatment of changes and the treatment of errors. Under this approach, the current version of a variable should be corrected as soon as an error is detected, whereas the frozen version should only be corrected at certain points in time or in specific circumstances agreed in advance with users.

18.21 Special provisions for the treatment of errors in large and important units maybe need to be negotiated with users. Errors in important units may have a considerable impact on certain types of statistics. If a special procedure is put in

place for these units, it should be fully documented in terms of the units to which it applies. Special provisions can be applied through a dedicated profiling team, or by appointing an authority (e.g. the head of the business register), who has the final say in these corrections.

## **18F - The Time Dimension**

18.22 If errors are detected it is important to know the exact moment at which the error occurred. If this date and the date of correction are recorded, it is possible to construct populations of units for certain points in time that may be more accurate than the situation on the register at that point in time. The date of correction, if a correction is carried out, is likely to be different from the moment of occurrence. In practice the date of occurrence is often not known.

18.23 A very important question is 'How far back in time should corrections be applied?' The answer depends on the correction strategy not only of the register but also of the statistics based on the register. If, for example, there is a procedure of revision in which all statistics are revised after a period of five years, then correction should be carried out to the moment of the previous revision. If there is only a revision procedure for National Accounts and not the individual statistics on which they are based, the period for which corrections should be carried out may depend on the frequency of the statistics based on the register.

18.24 Another important consideration is the moment corrections should be made. Corrections should be applied according to a fixed and documented procedure wherever possible. Corrections of errors in identification variables, such as names, addresses, telephone numbers etc., should normally be carried out immediately. If not, they may hinder data collection, and possibly also irritate respondents.

18.25 The correction of errors in stratification variables, such as economic activity and size-class, is a different matter. If these corrections are made the moment the errors are detected they will affect consistency between statistics with different periodicities. To avoid this the corrections should be stored until an agreed moment of correction, for example the first week of January of each year. However, if the register records information which allows survey statisticians to ignore corrections where necessary, there is no need to delay the application of corrections (see paragraphs 18.17 - 18.21 above).

## **18G - Sources for the Correction of Errors**

18.26 The source from which a correction originates is an important factor in deciding whether or how to correct the error. Care has to be taken that the register remains a known reflection of reality and that corrections do not lead to unknown distortions of that image. If the source is a statistical survey based on the register, corrections can lead to biases depending on the particular sampling scheme used. This is because the corrections would only apply to a part of the register, whereas for other parts, where units were not included in the sample, the quality would remain as before, resulting in different quality levels in different parts of the register.

18.27 A practical example of this is where a survey only targets specific economic activities (e.g. the PRODCOM survey, which only covers production units). Such a survey will help to identify units that are wrongly in scope of the survey, thus allowing these errors to be corrected, but it will not identify units wrongly out of scope. Applying corrections on this basis will mean that the quality of in-scope units will generally be higher than that of out of scope units. There would also be a distortion in the distribution of units on the register. The population of in scope units will be lower than it should be, whereas that of out of scope units would be correspondingly higher.

18.28 Corrections from sources that are comprehensive in nature can be processed without problems, as it may be assumed that they are randomly distributed over the units in the register. Corrections from all other sources will introduce a certain level of bias, and it is therefore necessary to determine whether this is acceptable to users.

## **18H - Summary and Recommendations**

18.29 In summary, there are three steps to the treatment of errors:

- Decide whether errors have occurred
- Decide whether they should be corrected
- Decide how and when to correct them

18.30 Errors will occur in all statistical business registers. To reach a level of quality acceptable to users, it is necessary to develop a systematic policy for the treatment of errors. The following recommendations aim to help the formulation of such a policy:

- The theoretical definition of errors presented in paragraph 18.4 should be translated into practical provisions adapted to the specific circumstances facing each business register.
- It is helpful to make an inventory of register uses, and the consequences of different types of errors for different users.
- The business register should be structured and maintained in such a way that the correction of errors has a minimal impact on statistical surveys.
- Register inputs, processes and outputs should be systematically monitored to detect potential errors.
- Register processes should be fully documented so that the correct treatment of all variables is clear to all concerned. This is necessary to detect errors and avoid discussions on the quality of individual records.
- The policies regarding the treatment of errors in the register should also be fully documented, and audited periodically to make sure they are still appropriate.



- Responsibilities regarding the treatment of errors should be clear and documented. It is advisable to appoint an authority (e.g. the head of the business register), who has the final say in difficult cases.
- The treatment of corrected register values in statistics based on the register should be fully co-ordinated and documented.
- The different types of errors detected should be analysed periodically to monitor changes in the pattern of errors over time, and thus to inform the development of policies to treat errors.
- Recording the history of errors will facilitate the treatment of errors in complex situations
- If statistical business registers are used for administrative or commercial purposes it is advisable to take legal precautions against damage claims in the case of errors.

## **18I - Relation to the BR Regulation**

18.31 The recommendations given in this chapter regarding the treatment of errors in statistical business registers go beyond the scope and provisions of the Regulation, particularly where they relate to the management of those registers.

**BUSINESS REGISTER  
RECOMMENDATIONS MANUAL**

**Chapter 19  
The Treatment of Large and  
Complex Businesses**

**Status: First Publication – March 2003**

## THE TREATMENT OF LARGE AND COMPLEX BUSINESSES

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### 19A - Introduction

19.1 The nature of the legal unit, relationships between legal units, and the relationship between the enterprise and the legal unit, were discussed in chapter 7. One of the conclusions was that in some cases an enterprise consists of more than one legal unit, but that it may also be smaller than the group of legal units that are related by ownership and control. Operational rules regarding the profiling of such groups, and the conditions, under which a combination of legal units is considered to form an enterprise, were not given.

19.2 This chapter builds on chapter 7 by developing rules for combining legal units into enterprises. It introduces the concept of profiling, considers the issues of thresholds and different methods of profiling, and then considers some operational rules for the profiling of enterprises and kind of activity units (KAUs). These two units are considered here, as they are the main statistical units for which data are required under current European legislation on business statistics.

19.3 The term "factors of production" is used in various parts of this chapter. For the purposes of this text, this term should be interpreted in the classic economic sense i.e. the factors of production are land, labour and capital. For the purposes of this chapter, intermediate inputs such as raw materials or semi-processed goods can be considered to be a form of capital, and therefore also a factor of production.

19.4 It is assumed that the starting point for profiling is the enterprise group (see chapter 21), and that this is determined by examination of the links between legal units. In this chapter the term group is used to refer to the enterprise group as defined in the statistical units Regulation. If enterprise groups do not explicitly exist in a statistical business register, groups of legal units can be used as a proxy. The introduction and development of profiling clearly requires that priority is given to gaining access to information on enterprise group links, and storing this information in the statistical business register. Profiling logically focuses on large groups, as these have a significant impact on business statistics, and tend to have the most complex legal structures.

19.5 The rules presented in this chapter take into account the need to be cost-efficient both for the groups concerned and national statistical institutions, including the need to keep response burden at an acceptable level. Whilst it can be justified to have rather elaborate rules for large groups, it is generally felt that the application of such rules to smaller groups may not be cost-efficient. A graduated approach is therefore proposed for the application of profiling rules.

19.6 Two limitations apply to the profiling guidelines set out in this chapter. The first is that these guidelines have been modelled largely on market producers belonging to the same institutional sector. The guidelines presented for market producers can to a large extent also be used for units in the general government sector and for private non-profit institutions, but in some cases specific adaptations may be necessary. The second is that it is assumed that business registers are limited to the national economic territory of countries. It may be necessary to adapt the guidelines where groups cross national boundaries, particularly if data are not available at the national level. Multinational groups are discussed further in chapter 21 and are outside the scope of this chapter, in which only the truncated enterprise group is taken into account.

19.7 The guidelines set out in the following paragraphs are not meant to be the final solution of the issue of statistical unit delineation. One reason for this is that economic reality, and the way it is reflected in administrative registers, changes continually, so the guidelines will need to be updated periodically. Another is that practical guidelines need empirical justification, that is, they need to be quantified and validated in terms of their effect on costs, response burden, and quality. As few empirical data for national systems are available, such guidelines are necessarily based on a qualitative judgement rather than a quantitative one.

19.8 Perhaps the main reason why these guidelines are not considered to be final is, however, that the elaboration and testing of rules for delineating the enterprise and the KAU are currently the subject of much methodological work. At the European level, the Statistical Units Task Force is leading this. It is anticipated that this chapter will continue to develop in line with the work of this Task Force, therefore the reader is advised to contact Eurostat to be sure of the latest position before investing heavily in trying to meet the recommendations contained below.

## **19B - Profiling - Definition and Thresholds**

19.9 A number of statistical institutes have experience in what is known as profiling. It is helpful at this point to define exactly what profiling means:

*Profiling is a method to analyse the legal, operational and accounting structure of an enterprise group at national and world level, in order to establish the statistical units within that group, their links, and the most efficient structures for the collection of statistical data.*

Proving may be sometimes used in the same meaning as profiling. Register proving means checking the information held on a statistical business register usually by

means of a survey. The following paragraphs try to develop the definition of profiling and explore what it means in operational terms.

19.10 Groups should be systematically monitored in order to delineate and keep track of the statistical units within them. The process of profiling generally includes the delineation of all main units that are used within the national statistical system. The rules set out in this chapter do not, however, cover all of the units defined in the Regulation on statistical units. They are restricted to the enterprise and the kind of activity unit as these are the main units for business statistics at the European level.

19.11 Before discussing operational rules, it is necessary to clarify the situations in which they are meant to be applied. As mentioned in the introduction, the focus is on large enterprises. But what is large? If the threshold is put too low, the benefits of application of the rules do not outweigh the costs, but if it is put too high, there is an increased cost in terms of the quality of the statistics involved.

19.12 If the threshold approach is followed, it is necessary to decide on the terms in which the threshold should be expressed. It could be in terms of the number of employees, turnover, or some combination of variables. It is also necessary to determine the unit to which the threshold should apply. The enterprise group is the most appropriate unit for this purpose for the following reasons:

- The threshold can not be specified in terms of the size of the enterprise, because the enterprise is not known in advance.
- If the threshold is expressed in terms of the size of the legal unit, it is possible that some large enterprises consisting of many smaller legal units are not profiled. It would also increase country-specificity, since the existence and size of legal units are a function of the national administrative circumstances.
- Taking the enterprise group as the basis for profiling guarantees that all related statistical units are delineated at the same time. This increases consistency and minimises the response burden caused by profiling.

19.13 If a threshold is used, one approach is to define it in terms of the number of employees of the enterprise group. In theory, for the purpose of delineating the units used for describing the production process, it would be preferable to use value added, because this is a better measure of the economic contribution of units. In practice, however, the basis for profiling is business register data, and the registers Regulation requires that data on persons occupied are held. Value added is not normally available in a business register, or from administrative sources.

19.14 Other, more sophisticated algorithms including considerations of economic activities and the number of legal units can help to refine the selection of units to be profiled. A different approach is to take a fixed number of the largest groups to profile, e.g. the top 100 or top 250 groups, again determined either by employment or a more complex algorithm. It may also be useful to consider profiling a sample of smaller groups of a certain type (e.g. those with one legal unit for the principal activity and another for an ancillary activity), particularly if this leads to the development of rules so that the profiling of the remainder can be at least partly automated. This is because although these groups have less economic impact individually, they may be quite numerous, so may have a considerable impact in

total. Ideally, if a threshold is used, it should be at the level where the costs and benefits of profiling are in balance.

19.15 In practice, however, it would be extremely difficult to set a threshold that would be meaningful and practical in all countries. Further experience is needed before the true costs and benefits of profiling can be accurately determined. For these reasons, no definitive threshold is proposed in this chapter. The recommendations are instead that:

- Profiling, as described above, should be applied in all Member States.
- Profiling should concentrate on the largest and most complex groups, also taking into account their importance to national and European statistics.
- Profiling should be gradually expanded to cover smaller and less complex groups if the benefits are important enough for statistical outputs, and are greater than the costs.
- Information on both the number and proportion of groups profiled should be collected. When data for several years are available, they should be used to study the possibility of applying some sort of common threshold in the future.

## **19C - Profiling - Methods**

19.16 The following paragraphs describe how profiling can be carried out in practice. The first requirement for successful profiling is the availability of suitable staff. Profiling is a complex task that requires a thorough knowledge of statistical units and national administrative data, therefore experienced staff at a fairly senior level are needed.

19.17 Profiling can be carried out in one of three ways:

- Face to face meetings - this form of profiling is expensive in terms of staff time and travel costs, but is often essential for larger and more complex groups. This is because it is usually necessary to involve several people representing different functions within the group, such as financial managers, personnel managers and operations managers.
- Other contacts with businesses - for less complex groups it may often be possible to determine the correct structure by confirming details over the telephone, by fax, e-mail or post.
- Using existing information - It may be possible to profile relatively simple groups on the basis of information already available from administrative sources and statistical surveys, or, increasingly via business web-sites. This form of profiling is relatively inexpensive in terms of staff costs, and involves no additional burden on the group concerned. It may, however, be necessary to make decisions on the basis of incomplete information, so this form of profiling may not be suitable for groups that are seen as vital for statistical outputs. The main advantage of this form of profiling is that standard rules can be applied, and in many cases the process can be automated, thus reducing costs whilst increasing the number of groups that can be profiled.

19.18 The numbers and types of the groups to be profiled should generally be determined in advance, possibly through the use of a threshold. It is important, however, to leave some flexibility in the profiling plan to deal with unexpected restructuring of key respondents. Triggers for such ad-hoc profiling can include press reports of restructuring or mergers, survey response problems, or direct contact from the group(s) concerned.

19.19 The exercise of profiling a group should be seen in terms of four distinct phases:

- Preparation - it is important to gather as much information about the group as possible. This allows the profiler to build up a mental picture of the likely structure of the group, and identifies the precise issues that need to be clarified.
- Profiling - the correct structure of the group and the future statistical reporting arrangements should be determined.
- Implementation - the profiled structure should be implemented on the statistical business register
- Review - The structure should be reviewed after a period of time, to ensure that it is not causing any survey response or burden problems. This may involve re-contacting the group.

19.20 To facilitate the profiling process, it is useful to develop a profile template including the likely issues to be considered and the types of questions that need to be answered. This can be used to structure interviews, or to ensure that all aspects are covered if there is no contact with the group. It also helps to ensure consistency of approach across a team of profilers.

19.21 For the methods of profiling that involve direct contact with the group, it is often necessary to ensure that the group are aware of the potential benefits of their co-operation. Profiling can often result in a reduced response burden, as it should ensure that statistical surveys are targeted more accurately and only to relevant units. These forms of profiling can also help create a greater mutual understanding between the statistical institution and key responders, and provide a line of communication to help resolve data issues.

## **19D - Operational Rules for the Enterprise - Defining the Enterprise**

19.22 The definition of the enterprise and its explanatory note as set out in the Regulation on statistical units were discussed in chapter 7 in relation to legal units. It was made clear that if there are separate legal units for factors of production which, in combination, are used for the production of goods and services, these legal units in combination constitute the enterprise. Despite their legal identity, in such cases the legal units would not be considered autonomous in an economic sense, only the combination of legal units (i.e. the enterprise) would have a sufficient degree of autonomy. One of the considerations on which this conclusion was based was the fact that the definition of the enterprise states that an enterprise is "an organisational unit" (as opposed to an administrative or legal unit) "which produces goods or

services and has a certain degree of autonomy in decision-making, especially for the allocation of its current resources."

19.23 The enterprise definition reflects its main use. In the system of European statistics the enterprise is primarily used for statistics that relate to the production of goods and services, for example it is the main observation unit for data required under Regulations concerning structural business statistics and short-term statistics. Such statistics require that factors of production used in the same process of production be combined into one unit. This allows inputs and outputs of the production process to be related, and thus the operating surplus of a unit to be measured.

19.24 The use of the enterprise for statistics relating to the production of goods and services makes it desirable that the enterprise has a property that is not specifically mentioned in the definition and its explanatory note: i.e. that the variables to be measured can actually be observed. Whether the enterprise actually has this property depends on the operational rules used to determine that unit.

19.25 The enterprise is also the institutional unit used for the financial and non-financial corporation sectors of national accounts based on the European System of Accounts (ESA), and is therefore the unit on which both financial and non-financial accounts are based. This use makes it desirable that, in addition to the variables mentioned in the previous paragraphs, financial variables, such as profit and loss, can also be measured. In practice, however, it may be the case that certain financial variables are only available (or meaningful) at the level of the enterprise group, so the availability of financial variables should not be seen as an essential feature when delineating an enterprise. As a general rule, an enterprise should normally be capable of providing the full range of variables required by the structural business statistics Regulation.

19.26 Defining operational rules for the enterprise amounts to indicating whether, and to what extent, legal units have to be combined into enterprises in practice. The starting point should be the existing definition of the enterprise. To comply with this definition, an enterprise needs to have certain features. Most of the units without these features can not be called enterprises. These features are described in the following paragraphs.

- *An enterprise has accounts at its disposal*

19.27 Although the definition of the enterprise does not mention this explicitly, an enterprise has accounts at its disposal covering the main aspects of the production process (inputs, outputs and operating surplus). This is a direct consequence of the (relative) autonomy of the enterprise in decision-making i.e. the enterprise may be expected to maintain accounts for its own benefit.

19.28 This feature is helpful in the sense that absence of accounts is a clear indication that the entity under consideration may not be an enterprise. However, the opposite is not true, if accounts are available, the entity under consideration is not automatically an enterprise. In large business organisations some form of accounts may be kept at several levels in the organisation.



19.29 The criterion of availability of accounts has to be applied with care. Accounts may be kept for management purposes or simply to meet administrative obligations. Such accounts may not conform to national or international accounting standards, and even if they do, they may be of limited relevance for statistical purposes without further treatment. Notably, costs and sales figures may differ substantially from market values, particularly if they relate to intra-group transfers. It is therefore important to consider the type of accounts when applying the criterion of availability of accounts.

19.30 It may be useful to note that there is an important link between availability of accounts and response burden. Respondents prefer to report on the basis of accounts at their disposal. If respondents ask the statistical institute to treat legal units as a combination, this is an indication that the separate legal units may not be appropriate as statistical units.

- *The operations of an enterprise are managed in an integrated manner*

19.31 Full autonomy and fully integrated operations are obviously closely linked. Both imply that an enterprise is managed as a distinct entity. An obvious way to find out whether a legal unit is managed independently is to look to the organisational structure of the enterprise group to determine whether the legal unit is a distinct organisational unit with a manager who has autonomy of decision-making in respect of the production of goods and services.

19.32 A more thorough way to determine whether legal units are managed separately or jointly is to look at the management of different elements of the activities involved, e.g.

- Purchases
- Production processes
- Production levels
- Sales / prices / marketing
- Investment

In other words, examples of the sort of questions that should be asked are: Are the purchases of legal units combined or co-ordinated? Are the factors of production of the legal units managed together or separately? Do the legal units present themselves as independent entities on the market, or do they have similar trade names, have one marketing policy, etc.? Are production levels, prices and capital expenditure decided centrally or independently? It should be noted that long-term strategic decisions concerning some of these elements, particularly investment, may be made at the level of the enterprise group, therefore consideration of these questions does not automatically lead to the correct delineation of the enterprise.

- *Market orientation of an enterprise*

19.33 Apart from certain exceptions (public sector, non-profit institutions, holding companies), market orientation can often be the most useful indicator of autonomy. If a legal unit is not market oriented, it can not act autonomously, so it does not comply

with the enterprise definition. The criterion of market orientation does, however, need to be defined precisely, and in a non-circular way, i.e. the definition of the market for a particular unit can not simply include everything outside that unit.

19.34 A legal unit can be considered to be market oriented if its output is sold to entities outside the enterprise group to which it belongs. If the output is sold entirely within the enterprise group, the prices and conditions of the “sales” may be subject to top level directions, as may the choice of the customers and suppliers. The autonomy of the legal unit may be restricted more directly if its operations are integrated with those of its client legal unit(s). It should be remembered, however, that even if a legal unit sells its output solely to other legal units within the enterprise group it may still act like a real market unit and the sales may be at market prices and on market terms. Therefore sales outside the group are a useful indicator of market orientation, but can not be relied on to provide a definitive answer in all cases.

## **19E - Operational Rules for the Enterprise - Applying the Definition**

19.35 Practical situations that need to be looked at are those where more than one legal unit could possibly be considered to constitute “the smallest combination of legal units that is an organisational unit producing goods or services, which benefits from a certain degree of autonomy in decision-making, especially for the allocation of its current resources” (quoted from the definition of the enterprise). Cases where the production of goods and services is spread over different legal units or where the production in different legal units is otherwise connected are relevant to discuss.

19.36 A couple of situations of possible combinations of legal units in enterprises were mentioned in chapter 7, i.e. cases where one or more factors of production have their own legal unit, and cases where legal units are engaged in ancillary activities. Other situations discussed below are services shared by businesses within an enterprise group, holding companies, vertical and horizontal integration, and franchising.

- *Separate legal units for factors of production*

19.37 A legal unit may own one or more factors of production, e.g. a building or some expensive equipment, or it may control labour. The separation of factors of production across different legal units may be due to tax laws, risk management, or the need to give sureties to the institution that provides capital to the business. Employment may be controlled via a specific legal unit within a group where this has an impact on the social security contributions or other taxes to be paid, or it reduces the costs of complying with certain aspects of labour legislation.

19.38 A separate factor of production can not normally be considered to be an organisational unit producing goods or services even if it is a separate legal unit with identifiable outputs. Such an organisational unit must involve a combination of various factors of production, therefore, legal units for individual factors of production in the same enterprise group should be combined with the units they serve to form an enterprise. For cases where several units share labour provided by a separate

legal unit, or one legal unit holds the assets of several others, see paragraphs 19.44 – 19.48 below.

- *Ancillary activities*

19.39 Ancillary activities are defined in the Regulation on statistical units (Annex, section IV, B). These may be provided by separate legal units within an enterprise. In such cases it is possible that they consist of a single factor of production, or some combination of different factors, but since they serve only units within the enterprise, and are not market oriented, they are not considered autonomous in the sense of the definition of the enterprise. As a consequence, they have to be combined with the legal unit(s) they serve to form the enterprise. The activities of one legal unit can only be considered as ancillary to another legal unit if both units are in the same group.

19.40 The Task Force on Statistical Units has confirmed that the following activities can be ancillary as long as they are carried out in a legal unit within the same group as the legal unit they are serving, and they serve only that legal unit: bookkeeping / accounts - 74.12

- wholesale trade of own products - 51
- real estate - 70
- production of small implements for the production process - 28.62 and 28.74
- transport and warehousing - 60.24; 63.1 and 63.2
- administration - 74.14 and 74.83
- data processing and other computer services - 72
- marketing - 74.4
- holdings - 74.15

Notes:

1. This list is an interim solution until a precise and practical definition for ancillary activities is elaborated and agreed upon. It could be supplemented by codes such as the following, identified by Germany as potential ancillary activities: 45.5; 50.10; 50.2; 50.30; 50.40; 52.1; 52.2; 52.3; 52.4; 52.5; 52.6; 63.3; 63.40; 65.21; 71.1; 71.21; 71.22; 71.23; 71.31; 71.32; 71.33; 71.4; 73.1; 73.2; 74.11; 74.13; 74.2; 74.3; 75.5; 74.6; 74.70; 74.81; 74.82; 74.84.

2. This list is not meant to be exhaustive. It is possible that, in certain circumstances, activities not on this list could also be considered to be ancillary.

19.41 In addition the Regulation on statistical units lists the following activities which can not be considered to be ancillary:

*(a) the production of goods or work carried out which forms part of fixed capital formation - in particular, construction work for own account. This is in line with the method used in NACE, where units carrying out construction work for own account are classified under the building industry if data are available;*

*(b) production, a significant part of which is sold commercially, even if much is used as consumption in connection with the principal or secondary activities;*

*(c) the production of goods which subsequently become an integral part of the output of the principal or secondary activity - for example, production of boxes, containers, etc. by a department of an enterprise for use in packing its products;*

*(d) the production of energy (integrated power station or integrated coking plant), even where this is consumed in its entirety in the principal or secondary activity of the parent unit;*

*(e) the purchase of goods for resale in an unaltered state;*

*(f) research and development.*

The Regulation also states that:

*In all of these cases, if separate data are available for these activities, and the collection of data is considered to be cost-effective, they should be regarded as distinct activities and subsequently recognised as KAUs.*

19.42 If an enterprise has a holding legal unit, which is not holding assets of any other enterprise, this legal unit is considered to carry out an ancillary activity. It should be combined with the other legal units of the enterprise.

19.43 From an accounting point of view combining ancillary units with the units they serve does not normally pose any problems. In practice respondents may prefer to report on the enterprise as a whole, because integrated accounts are produced for management purposes and the reporting burden is lower.

- *Services shared by units within a group*

19.44 An ancillary activity is by definition linked to only one enterprise, although it can serve more than one KAU within the enterprise. At the level of the enterprise group, a similar phenomenon can exist, concerning services shared by businesses within the group. For example, enterprises may share a computer service for which a separate legal unit exists. Such services may not be market oriented and may not be any more autonomous than an ancillary activity within an enterprise. Costs are normally shared across the enterprises within the group.

19.45 It is not possible to split the legal unit under consideration among the enterprises it serves, since by definition enterprises consist of whole legal units, therefore, although the autonomy of the servicing legal unit may be severely restricted, it should generally be considered an enterprise. In some countries the term “quasi-enterprise” is used. It may be useful to distinguish these enterprises in some way for certain analytical purposes, but they should still be considered as standard enterprises for the purposes of the compilation and dissemination of business statistics. As such an enterprise may serve other enterprises with different economic activities, and the level of its input may vary considerably over time, the NACE code given to it should represent its own activity, even if this activity is then split analytically amongst other enterprises within the group (Note - the work programme of the Task Force on statistical units includes further research on this point, so these guidelines may be subject to change).

19.46 An exception to this can arise where a legal unit provides labour for several units that would otherwise be considered to be enterprises within a (truncated) enterprise group. In such cases, the following distinction should be made:

- If a legal unit provides staff to two or more other units within the enterprise group on the bases of market contracts, and/or it provides services to units outside the group, the units should be regarded as separate enterprises.
- If the provision of labour is entirely within the group, and not on a market contract basis, the staff can be considered as one of the factors of production needed for the supply of goods or services to the market. In this case, the legal unit forms an enterprise along with the other legal units in the group where the staff actually works.

Note - gathering the necessary information to make this distinction will almost certainly require direct contact with the unit.

- *Holding companies within a group*

19.47 A legal unit set up to hold the assets of two or more enterprises within an enterprise group (a "holding company") resembles to some extent the previous case. It is not market oriented in the sense that it does not sell goods and services to customers outside the group. Pure holding companies only hold the assets of other units, and therefore have no turnover or employment, though many holding companies also provide some sort of group service, often of a financial nature. The costs of providing such a service are often recovered through transfers from the enterprises involved.

19.48 In theory, pure holding companies do not fulfil the definition of the enterprise, as they are not a combination of factors of production producing goods and services. Since an enterprise can not contain parts of legal units, and as NACE class 74.15, "management activities of holding companies", allows the units concerned to be clearly recognisable and their impact quantifiable, holding companies within groups should be regarded as separate enterprises (for some purposes these may be considered to be "quasi-enterprises"). This solution does not rule out the possibility of apportioning variables to other enterprises within the group, indeed this may be desirable for certain types of statistics. The possibility of combining all legal units within the group into one enterprise is not considered here as the groups under consideration can be very large. Units that combine holding and other types of activities should be treated as separate enterprises, particularly if this involves the provision of goods and services outside the group.

- *Vertical integration*

19.49 Two legal units are said to be vertically integrated if they are within the same enterprise group and the other consumes all of the output of one. For example, the output of a legal unit engaged in printing could go entirely to a legal unit engaged in bookbinding. In many cases, the activity of one legal unit could be seen as ancillary to the other. There are certain specific circumstances where an activity can not be regarded as ancillary, which are set out in the statistical units Regulation. These do

not prevent the units being combined into one enterprise, but may strengthen the case for splitting the enterprise into separate KAUs.

19.50 If two or more legal units in the same enterprise group are vertically integrated, they may be considered not to act independently, as the supplying legal unit is not really market oriented. In cases where one unit is completely dependent on another for its sales, it loses autonomy. In practice, it is assumed that the legal units are managed together as one business, therefore, they should be combined to form one enterprise.

19.51 Sometimes a legal unit supplies parts of its output directly to the customers of the legal unit receiving its output e.g. spare parts or services. In this case it has to be considered whether this is done under market conditions and under the responsibility of the first unit or whether it is carried out under the control of the second unit. (Note - the work programme of the Task Force on statistical units includes further research on vertical integration, so these guidelines may be subject to change)

- *Horizontal integration*

19.52 Two legal units are said to be horizontally integrated if they are within the same enterprise group, carry out similar or complimentary activities, are managed as one business, and present themselves as a single business to the market. This means that their operations are integrated, they share resources, inputs are combined, and marketing is done for the business as a whole. If two (or more) legal units are horizontally integrated they can not be considered to act autonomously. Thus, the legal units should be combined to form a single enterprise.

19.53 The concept of "complimentary activities" is used here because the activities of horizontally integrated businesses involve similar inputs, and processes. Activities may be complimentary without necessarily falling into the same NACE class. An example could be units that buy steel tubes, and use similar processes and shared resources to make metal furniture and bicycles respectively. (Note - the work programme of the Task Force on statistical units includes further research on horizontal integration, so these guidelines may be subject to change).

- *Franchising*

19.54 The operation of a franchise network is a method of doing business that is popular in a number of service activities, especially hotels, restaurants, and retail sales. Franchisees are independent legal units which sign a contract with another legal unit, the franchiser, to engage in an activity making use of trademarks, trading styles and marketing support provided by the franchiser, usually in return for a fee or a share of the profits. A franchise contract typically includes a number of restrictive clauses limiting the franchisee's freedom of choice, for instance imposing standards as to the goods and services to be produced, their quality and their price. The franchisee may be compelled to obtain supplies from the franchiser and must pay a contribution towards certain services organised by the franchiser that are common to the entire network. The franchiser, in turn, offers scale economies without completely taking away the autonomy of the franchisee, for example by taking care of collective

marketing. Franchise operators may or may not belong to the same enterprise group.

19.55 Franchisees are deemed to be separate enterprises because they consist of a complete combination of factors of production, and they run the full entrepreneurial risk. Moreover, the definition of the enterprise requires autonomy but allows for this autonomy to be somewhat restricted (“a certain degree of autonomy” is required), and full accounts tend to be available only at the level of the separate franchisees. The franchiser is also regarded as a separate enterprise.

### *Conclusions*

19.56 The cases described above cover many of the more difficult situations to be handled by business register staff, and provide guidelines that can be applied in other cases. It is recognised that they do not, however, cover all possible cases, so it is recommended to evaluate these rules after a period of application. This evaluation should include an assessment of whether it is necessary to add further rules covering other cases and circumstances. The rules may also have to be adapted if they are to be applied to the general government sector, non-profit institutions and to situations where national boundaries play a role.

19.57 The operational rules for the enterprise result in units that are appropriate for most purposes. In particular, the criterion of availability of accounts makes it possible to collect the information needed for economic statistics. However, there are two reasons why the units that emerge may not always be the optimal statistical units for all possible uses. Firstly, they are not necessarily homogeneous enough in respect of their economic activity, and secondly they can only consist of one or more whole legal units. In the next part of this chapter the KAU is discussed, this unit is more homogeneous than the enterprise and may consist of legal units and/or parts of legal units.

19.58 Although the operational rules for determining the enterprise are in line with most of its uses, the suitability of the resulting unit as the basis for the financial accounts defined in the European System of Accounts (ESA95) is less obvious. Whether this unit has full accounts available needs further investigation. The autonomy of the enterprise may in some cases be limited to the production of goods and services, and the current resources involved. The autonomy to distribute profits and the corresponding accounts may reside at a higher level.

19.59 In summary, the rules for determining the enterprise are as follows:

- *If a separate legal unit exists for a single factor of production, this legal unit should be combined with the other legal unit(s) it serves to form an enterprise.*
- *If a separate legal unit exists for an ancillary activity (including holding company activities) connected to just one enterprise, the legal unit should be combined with that enterprise.*
- *If a legal unit provides services to several enterprises within an enterprise group, it is considered to be a (quasi) enterprise. If it provides staffing services to several other legal units within an enterprise group, there may be a case for combining all the affected units.*

- *Holding companies that hold the assets of more than one enterprise are deemed to be (quasi) enterprises.*
- *Legal units carrying out vertically or horizontally integrated activities should be combined to form a single enterprise.*
- *Franchisers and franchisees are considered separate enterprises.*
- *In other cases, the availability of accounts, market orientation, and the integration of operations are elements to be considered when delineating the enterprise.*
- *If a legal unit is kept as a separate enterprise, it may still be useful for certain purposes to analytically split the variables for such a unit over the enterprises it serves.*
- *The above rules assume the legal units involved are within the same enterprise group. If they are not, they should not be combined*

19.60 It should be remembered that the recommendations above are being re-examined by the Task Force on Statistical Units. This group aims to validate, and possibly extend these rules as well as consider how they can be tested and implemented in practice. This chapter will be further revised in line with the findings of the Task Force

## **19F - Operational Rules for the Kind-of-Activity Unit**

19.61 The definition of the enterprise mentions that it may have secondary activities, which results in heterogeneity of activities defined in terms of NACE at the class level. The KAU is meant to reduce such heterogeneity, as follows from its definition and explanatory notes in the Regulation on statistical units. These notes also make it clear that the KAU can only fulfil this purpose to the extent that data are available, therefore the KAU should normally correspond to one or more organisational (sub) divisions of the enterprise. The same Regulation also defines a perfectly homogeneous unit, the unit of homogeneous production (UHP), which can be used for analytical purposes, but, unlike the KAU, it is not directly observable. Data on the UHP are not required under European legislation on business statistics.

19.62 Operational rules for the KAU have to balance the need for homogeneity against data availability, whilst also taking into account the costs of maintaining the KAU, the response burden, and the efforts required to maintain consistency with statistics based on the enterprise. It is therefore proposed to be pragmatic in choosing the operational rules, and not to split enterprises into KAUs lightly. It is also proposed not to distinguish KAUs from enterprises if there is no statistical need to do so, therefore, KAUs should only normally be created in sections of NACE where there is a requirement for data collection at that level.

19.63 In principle, whether an enterprise should be split into KAUs has nothing to do with the legal structure of the enterprise. However, when listing operational rules it may be practical to distinguish between cases where:

- The KAU equals one legal unit but the enterprise consists of more than one legal unit.
- The KAU does not equal one legal unit but is composed of one or more legal units and/or parts of legal units.



19.64 The first situation can be treated by considering cases where legal units should be combined to form an enterprise, and deciding under what conditions the need for greater homogeneity requires that the enterprise should be re-divided into its legal units to form KAUs. The operational rules below assume KAUs are delineated in a top-down manner. It may also be possible to build the KAU from information on activities carried out at the local unit level, however, since the KAU is by definition an enterprise or part thereof, the top-down approach automatically results in consistency between the enterprise level and the KAU level.

*Splitting enterprises into KAUs corresponding to legal units*

- *Separate legal units for different factors of production*

19.65 The enterprise, which is the combination of the legal units concerned, does not have to be split, because separating single factors of production would not improve homogeneity. The NACE classification is not a list of factors of production, but of combinations of those factors that amount to economic activities. Making KAUs out of separate factors of production may also contradict the definitional requirement that the KAU is an organisational part of the enterprise, and would not be desirable from the point of view of availability of accounts and response burden.

- *Ancillary activities*

19.66 Legal units performing ancillary activities should not be KAUs. The first explanatory note of the definition of the KAU in the Regulation on statistical units states explicitly that an ancillary activity can not constitute a KAU. This would not be desirable, because NACE is intended to reflect economic activities, each of which includes all ancillary activities necessary to perform them. If an ancillary activity within an enterprise serves more than one KAU, it should be apportioned across those KAUs regardless of whether or not it is carried out in a specific legal unit. This is possible because, unlike the enterprise, the KAU can include parts of legal units.

- *Vertical integration*

19.67 It is not obvious what the effect on homogeneity would be if a vertically integrated enterprise were split into KAUs corresponding to the legal units. Vertically integrated activities may be represented in a single NACE code, in which case making the legal units into separate KAUs could very well reduce homogeneity, whereas, if the activities are separately identified at the NACE class level, splitting the enterprise would improve homogeneity.

19.68 A further consideration is the availability of accounts. It is possible that no accounts are available for the separate legal units, at least no accounts where the inputs and outputs are recorded at real market values. It is desirable that this is a requirement for the KAU.

19.69 It is recommended that legal units carrying out vertically integrated activities within an enterprise are not normally split into KAUs. They could only be considered to be KAUs if they fulfil all three of the following conditions:

- The integrated activity does not fall within a single NACE class, *and*
- The activities of the legal units can be separately identified at this level, *and*
- Accounts are available with data on inputs and outputs at (at least approximate) market values.

- *Horizontal integration*

19.70 If horizontally integrated legal units within an enterprise carry out the same activity, homogeneity does not increase if the enterprise is split into KAUs. If the activities were different, homogeneity would increase by splitting the enterprise. It is therefore recommended that horizontally integrated legal units are only considered to be KAUs if:

- They carry out different economic activities at the NACE class level, *and*
- Separate accounts are available.

- *Other cases where the enterprise consists of more than one legal unit*

19.71 In the guidelines given for market enterprises, three strongly linked criteria are used to identify units complying with the definition of the enterprise: availability of accounts, market orientation, and integrated operations. For the KAU these criteria are also relevant, but it is proposed to apply them less strictly to allow for a higher degree of homogeneity.

- Availability of accounts - full accounts would normally be available at the enterprise (or group) level, though the data availability aspect of the KAU definition implies that limited accounts should also be available at this level.
- Market orientation - the KAU does not have to have actual market clients, as long as it is operated as a market oriented unit. This implies that it records market values or approximations of market values. This criterion is not, however, absolute, as according to the Regulation on statistical units, research and development and other activities mentioned in paragraph 19.41 can correspond to KAUs if data are available
- Integrated operations - the definition of the KAU states that the KAU corresponds to one or more operational (sub) divisions of the enterprise, therefore full integration is not necessary at this level.

19.72 Apart from the criteria above, it is also relevant to consider whether splitting an enterprise into KAUs would increase homogeneity in terms of NACE. It is proposed to require that

- The activities of the individual legal units can be identified at the NACE class level, *and*
- The combined activities of the legal units of the enterprise do not fall within a single NACE class.

*Splitting enterprises into KAUs not corresponding to legal units*

19.73 In line with the recommendations above, it is proposed to limit the splitting of enterprises into KAUs that do not correspond to legal units to situations where all of the following conditions are satisfied:

- The KAUs are operated as market oriented, operational parts of the enterprise, although they may not have market clients, *and*
- Accounts are available with data for inputs and outputs at (at least approximate) market values, *and*
- The activities of the KAUs can be identified at the NACE class level, *and*
- The activity of the enterprise does not fall within a single NACE class.

#### *Application of a threshold*

19.74 It may be desirable to determine a minimum size and/or a minimum share in the output of the enterprise that must be reached before KAUs can be created. Such a threshold would ideally depend on a cost-benefit analysis, which is likely to vary from country to country. It is not therefore recommended to apply a strict threshold at the European level.

#### *Conclusions*

19.75 In summary, the recommendations for delimiting KAUs are as follows:

- Under certain conditions regarding activities carried out and availability of accounts, vertically integrated legal units may be separate KAUs.
- The same is true for horizontally integrated legal units
- In other cases splitting the enterprise into KAUs is possible in principle, even if the KAUs would not equal legal units. In these cases certain conditions apply regarding operational existence, market orientation, availability of accounts, and activities carried out.
- The operational rules for the KAU should be evaluated after a period of application.

### **19G - Quality Measures**

19.76 In the context of quality, it is clearly desirable to determine the degree to which the above recommendations are implemented in practice. It is therefore proposed to develop a measure of the quality of the implementation of the operational definitions of the enterprise and kind of activity unit. This should be done in such a way that:

- The measure is relevant to the quality of business statistics based on the enterprise.
- Reference is made to measurable variables only.
- No reference is made to country-specific situations
- Measurement can take place for those operational rules on which agreement exists already.

19.77 The development of such quality measures is currently outside the scope of this chapter, as more experience is needed in the implementation of these rules

before such measures could be finalised. It is recommended that possible measures should be developed and tested in practice before they are incorporated in future versions of this chapter.

## **19H - Relation to the BR Regulation**

19.78 The operational rules for the enterprise given in this chapter are considered an interpretation of the Regulation on business registers, whereas those concerning the KAU can not be considered to have the same status as the Regulation does not require this unit to be included in statistical business registers.

**BUSINESS REGISTER  
RECOMMENDATIONS MANUAL**

**Chapter 20  
The Use of Administrative Sources**

**Status: First Publication – March 2003**

## THE USE OF ADMINISTRATIVE SOURCES

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### 20A - Introduction

20.1 This chapter describes the relationship between administrative data sources and statistical business registers, focusing on how those sources can be used to maintain and enhance the register. The definition of administrative sources is considered, along with the expected benefits and problems relating to their use. The specific case of registers that can be linked to a statistical business register (known as "satellite registers") is also considered, focussing on the example of Intrastat data.

### 20B - Definitions of Administrative Sources

20.2 A traditional definition of administrative sources is that they are files of data collected by government bodies for the purposes of administering taxes or benefits, or monitoring populations. This narrow definition is gradually becoming less relevant as functions previously carried out by the government sector are, in many countries, being transferred partly or wholly to the private sector, and the availability of good quality private sector data sources is increasing. It is therefore necessary to consider a wider definition of administrative sources.

20.3 For the purposes of this manual, administrative sources are therefore defined in the widest possible sense:

*Administrative sources are sources containing information that is not primarily collected for statistical purposes*

This wide definition allows the consideration of virtually the whole range of non-survey inputs to business registers, regardless of origin.

20.4 Eurostat collects information on the administrative data sources used for statistical business registers in the annual business registers questionnaire. The most commonly used sources relate to taxation systems such as Value Added Tax (VAT), and personal income tax, or to compulsory business registration systems,

often administered by chambers of commerce. Information is also obtained in some cases from published accounts, private sector business data providers, or utility company records. In some cases, different sources are used for specific categories of units defined by criteria such as size, economic activity or legal form. These sources can in certain circumstances be used to create "satellite registers". These are discussed in more detail in section 20H.

20.5 Some countries are exploring the possibility of automatically extracting data from the internal financial or management accounting systems of businesses. Under the wider definition set out above, this should also be considered to be use of data from an administrative source.

## **20C - Why Use Administrative Sources?**

20.6 The following paragraphs explore the reasons for using administrative sources, focussing on the advantages of this type of data. The use of administrative sources also raises a number of problems, which are considered, including possible solutions in section 20D.

20.7 The main advantage of administrative sources over survey data is usually cost. Surveys are very expensive, particularly if they are conducted as censuses, or involve the use of personal interviews. Administrative sources are often "free", particularly if they originate from the public sector. If there is a charge for the administrative data, it is often still cheaper than collecting the same information via a survey. Less staff are usually needed to process the data, and there is no need for response chasing. The size and scope of statistical business registers makes it very unlikely that they can be satisfactorily populated and maintained solely by survey data.

20.8 Using data from administrative sources also helps to reduce the response burden on businesses. Whilst businesses usually understand the reasons for supplying data for registration and taxation purposes, even if they do not like doing so, they may see statistical data requests as an extra, less necessary, burden. If they have already provided details to other government departments, they may become annoyed at receiving similar requests from the national statistical institution. A related advantage is that the use of administrative data may in some cases allow statistics to be produced more frequently, with no extra cost to businesses.

20.9 Administrative sources often give complete, or almost complete, coverage of the target population, whereas sample surveys often only directly cover a relatively small proportion. The use of administrative sources therefore eliminates survey errors, removes (or significantly reduces) non-response, and provides more accurate and detailed estimates for various sub-populations, e.g. businesses in small geographic areas. Coverage is often of particular interest from the point of view of statistical business registers, given that such registers should cover at least all businesses with a labour input of one person half time or more (see chapter 6).

20.10 The use of administrative sources may increase the quality of business registers by allowing access to more up to date information concerning certain variables e.g.

- The opening and closing of units and the dates of these events
- The economic activity code (at enterprise and/or local unit level)
- Information on unit locations (at local unit level)
- Size data (number of employees or turnover).

20.11 As well as improving the timeliness of variables, the use of data from administrative sources can, in some cases, improve the timeliness of statistics that are derived from business register data either directly or via samples. This is because statistical surveys generally take time to plan, to design and pilot forms, to analyse the population and optimise the sample etc.. This is particularly the case for annual or ad-hoc data collections. Therefore access to a suitable administrative source via the business register can be a more efficient solution. It should be noted, however, that there are also likely to be cases where the use of administrative sources leads to a reduction in timeliness, particularly regarding short-term indicators. See paragraph 20.18 below.

20.12 Public opinion relating to the sharing of data, particularly between different government departments, varies considerably from country to country. Where public opinion generally accepts, or is in favour of data sharing, the increased use of existing data sources can help to enhance the prestige of a national statistical institution by making it more efficient and cost-effective.

## **20D - Problems Using Administrative Sources**

20.13 Although there are many good reasons for using administrative sources, there are also a number of common problems. The following paragraphs outline some of these problems and propose methods to solve them, or at least to minimise their impact on statistical business registers. One specific problem, that of getting access to administrative sources in the first place, is treated separately in section 20G below.

20.14 Paragraph 20.12 considered how public opinion might favour the sharing of data in some countries. In other countries, however, there may be public unease at the thought of data being shared around government. It is very difficult to reduce such concerns, but possible approaches could include the publication of clear limits and rules regarding the use of data, ensuring that businesses understand that sensitive data will not be fed back to other parts of government (particularly tax agencies). The publication of analyses of the costs and benefits, both to government and to businesses, of the use of different sources may also help.

20.15 One major problem often encountered when using administrative sources is that the units used in those sources do not correspond directly to the definition of the required statistical units. The process of converting from administrative units (which may often be equivalent to legal units) to statistical units (i.e. enterprises and local



units) is known as profiling, and is discussed in chapter 19, along with rules for combining legal units into enterprises.

20.16 As well as differences in the definitions of units, there are also likely to be differences in the definitions of variables between administrative and statistical systems. The data in administrative sources have generally been collected for a specific administrative purpose, and the needs and priorities relating to that purpose are likely to be different to those of the statistical system. For example, turnover for value added tax (VAT) purposes may not include turnover related to the sales of VAT exempt goods and services, whereas the statistical system is likely to require total turnover.

20.17 Similarly, the classification systems used within administrative sources may be different to those used in the statistical world. Even if they are the same, they may be applied differently depending on the primary purpose of the administrative source. Where classification systems are different, it is usually necessary to construct correlation tables to map the codes in the administrative classification onto those required for statistical business registers. Such mappings may be one to one, one to many, or many to many. In the latter cases, some sort of probabilistic allocation is often required. This should result in accurate coding at the aggregate level, but not necessarily at the level of individual units.

20.18 Another common problem encountered when using data from administrative sources relates to timeliness. Data may either not be available in time to meet statistical needs, or they may relate to a period which does not coincide with that required for statistical purposes, e.g. a tax year may not coincide with the calendar year required for structural business statistics. There will generally be some sort of lag between an event happening in the real world, and it being recorded by an administrative source, this is then followed by a further lag before the data are made available to the statistical business register. Lags relating to births and deaths of enterprises are a major source of register coverage errors. If these lags can be measured, allowance can be made for them in any statistics based on register data.

20.19 Public sector administrative sources are generally set up for the purposes of collecting taxes or monitoring government policies. This means that they are susceptible to political changes. If a policy changes, administrative sources may be affected in terms of coverage, definitions, thresholds etc., or possibly even abolished completely. Such changes may happen suddenly, with little warning, particularly following a change of government. Reliance on a particular source always carries a certain degree of risk. These risks can be managed to some extent by legal or contractual provisions, regular contact with those responsible for the administrative source to try to get early warning of possible changes, and by drawing up contingency plans.

20.20 If data from several administrative sources are used, it is likely that the manager of the statistical business register will be faced with problems matching the data. Matching is relatively easy if there is some form of common identification number, but if not, it usually has to be based on variables such as name, address and NACE code. In such cases it is likely that there will be a certain proportion of

false matches and false non-matches, and the need for clerical investigation of possible matches.

20.21 Another problem where multiple sources are used concerns consistency between the sources. Data from one source may appear to contradict those from another source. This may be due to different definitions, classifications or differences in timing, or simply to an error in one source. To resolve such conflicts it is necessary to establish priority rules, by deciding which source is most reliable for a particular variable. Once a priority order of sources has been determined for a variable it should then be possible to ensure that data from a high priority source are not overwritten from a lower priority source. This process is made much easier if source codes and dates are stored alongside the main register variables.

## **20E - Quality and Administrative Sources**

20.22 The issue of quality in relation to statistical business registers is discussed in detail in chapter 10, but it is worth commenting on the assessment of the quality of various actual and potential administrative sources used to maintain statistical business registers. If the manager of such a register is fortunate enough to be faced with a choice of two or more administrative sources, how can he or she determine which source has the higher quality?

20.23 There is no simple answer to this question, but there are several possible approaches, which may be used in combination. It can be useful to compare sources in terms of coverage and accuracy of the variables. This can be aided by some sort of quality survey to determine the correct values of certain variables.

20.24 Perhaps the best way to assess the quality of an administrative source is, however, to build up a thorough knowledge of that source, including the primary purpose of the source and the way the data are collected and processed. Thorough understanding of a source will allow a more accurate assessment of strengths and weaknesses.

## **20F - Using Administrative Sources in Practice**

20.25 The following paragraphs consider the processes that are often necessary to transform data from administrative sources into the variables required for statistical business registers. The main processes are listed and briefly explained below.

- ***First steps and the transition from administrative to statistical data***

20.26 The first steps generally concern processing the administrative data to check their quality and coverage. Preliminary analyses may be useful, or even necessary, to check several points including:

- The main characteristics of the administrative data e.g. date of reference, the total number of units, procedures used to update the source, etc.

- The coverage of the main variables e.g. identity number, address, economic activity codes, number of employees, sales space, products sold etc.
- The error profile of these variables, especially the variables needed to determine continuity of statistical units (e.g. identity numbers, economic activity codes, location, dates, etc.)

20.27 If the preliminary analyses show that the source is of sufficient quality, and may help to increase the quality of the business register, a second group of procedures are required to translate the data to meet the requirements of the statistical business register. These procedures refer to the pre-treatment of the administrative data, including the application of statistical definitions of units and variables.

20.28 An administrative source is unlikely to use the same definition of units required by a statistical business register, especially in the case of complex businesses. The translation of the administrative data into statistical data may therefore involve steps such as the creation of algorithms or look-up tables to convert variables and classifications, e.g. tables that convert economic activity codes to NACE codes, and location details into NUTS codes.

- ***Linking and matching***

20.29 The next step is to identify the link between units in the administrative source and the corresponding units in the statistical business register. If available in the administrative source, the basic link can be established through an administrative code (e.g. fiscal code or VAT number) already recorded in the business register.

20.30 If there is no common identification code, a probabilistic approach to record linking can be adopted by identifying correspondences or similarities in the name and address, or other characteristics (e.g. legal form, economic activity code, etc.). This process is generally referred to as matching, and is intended to be discussed in more detail in a later chapter. With this approach it is, however, possible to link units in error (sometimes known as false matches).

20.31 Quality checks of the results of the matching should be carried out. These can take the form of checks of auxiliary variables, e.g. economic activity codes, size or legal form. If these variables are consistent it is more likely that the match is correct. If not, further clerical checks may be needed, particularly where larger units are concerned.

20.32 It is also useful to periodically check the non-matched units and attempt to establish further links or to determine why they do not match. If the non-matched units are genuine, they may be due to timing or scope differences between the administrative source and the statistical business register.

- ***Quality improvements and addition of specific stratification variables***

20.33 Administrative sources can provide a useful check for existing register variables, e.g. name, address, contact details, size and classification variables. Where the administrative source and the statistical business register do not agree, it

should be possible to investigate the reasons, and thus gain a greater understanding of register quality. Surveys can be used to investigate such discrepancies, either specifically for this purpose, or as part of some other data collection exercise.

20.34 Administrative sources often hold variables not normally found in statistical business registers. These may be of use for stratification purposes for certain types of surveys. Such sources may be used to develop "satellite registers", which are discussed further in section 20H.

## **20G - Access to Administrative Sources**

20.35 Access to administrative sources is stated in the business register Regulation (see paragraph 20.54) but also more generally in the Council Regulation (EC) No. 322/97 of 17 February 1997 on Community Statistics, Article 16 (...the national authorities and the Community authority shall have access to administrative data sources,...). Issues relating to gaining access to administrative sources are dealt with thoroughly in the Eurostat publication "Use of Administrative Sources for Business Statistics Purposes - Handbook of Good Practices", so they are only summarised and related specifically to statistical business registers in this chapter.

20.36 There are two aspects to getting access to administrative sources, the first concerns the legal framework, whereas the second covers the practical issues surrounding the transfer of data. The legal framework will vary from country to country, but the preferred approach is to have an automatic right of access to administrative data enshrined in a general statistical act. The practical issues concerning access to administrative sources also vary from country to country, but here it is more appropriate to consider good practices and how they can be spread.

20.37 The annual business register inquiry conducted by Eurostat has shown that the main administrative sources used for statistical business registers are tax records (e.g. those relating to VAT or employee income tax), or details of compulsory registration with bodies such as chambers of commerce. Access to such public sector sources is usually free, but may be difficult to obtain due to policy, legal or resource considerations. Private sector administrative sources are used in some countries, e.g. for information on links and ownership. Access to these sources is usually easier to arrange, but is normally subject to a charge.

20.38 It is recommended to have some sort of formal agreement with administrative data suppliers, such as a legally binding contract with private sector suppliers, or a "service level agreement" or "memorandum of understanding" within the public sector. These agreements should describe the rights and responsibilities of both parties, data confidentiality constraints, quality standards, frequency and format of data transfer and procedures to follow in case of disputes.

20.39 Alongside formal arrangements it is also strongly recommended to build a good working relationship with administrative data suppliers. This can be achieved through regular contact, preferably at least partly face-to-face. It is usually worth investing some time to visit suppliers to gain a greater knowledge of their work, systems and constraints. This leads to a better appreciation of quality issues, and

can help to build goodwill and mutual understanding, which, in turn helps identification and resolution of problems as they arise, and before they escalate.

## **20H - Satellite Registers**

20.40 One way of using administrative data in practice is to organise these data into specific registers linked to the statistical business register. If these registers meet certain criteria, they can be referred to as "satellite registers". Satellite registers are therefore defined as registers that are available to the national statistical system (in the National Statistical Institute or elsewhere), contain information about businesses, and fulfil the following conditions:

- They are not an integral part of the statistical business register as referred to in the business registers Regulation, but are capable of being linked to it.
- They are more limited in scope than the statistical business register, e.g. in terms of NACE, but within that scope they may have more extensive coverage of units and/or variables.
- They contain one or more variables that are not found in the statistical business register. Such variables are generally capable of being used for stratification purposes.

20.41 Thus satellite registers can be constructed using information from administrative sources, statistical surveys, or a combination of both. In some cases they may add, combine or otherwise transform variables, though in others they may be more or less identical to a particular source. To ensure that satellite registers are sufficiently coherent with statistical business registers, it may be useful to consider additional criteria, e.g. common unit identifiers, common definitions and classifications. The greater the coherence, the more useful a satellite register is likely to be.

20.42 The scope of satellite registers can be determined by:

- Economic activity - they may contain businesses with similar activities e.g. retail trade, accommodation, road haulage etc..
- Size - They may contain units with a certain number of employees or turnover over a certain level, e.g. they may contain the subset of "large enterprises"
- Characteristics - They may contain units with a common characteristic, e.g. those that engage in foreign trade (units on the register of intra-Community operators - variable 1k in the business registers Regulation)

20.43 Variables specific to a particular sector of economic activity may be made available by using satellite registers, e.g. the variable "sales space" for businesses in the retail trade; or the variables "category/number of stars" or "number of beds" for hotels (detailed discussion papers on satellite registers for distributive trade and tourism are available from Eurostat). Satellite registers can add value to statistical business registers by adding a wider range of variables both for stratification and analysis purposes.

20.44 One factor that greatly facilitates the use of satellite registers concerns the rights and mechanics of access to administrative sources for statistical purposes. Many potential satellite registers are likely to exist, but they are of no real use if the legal and technical means to link them to the statistical business register are not in place.

20.45 The use of satellite registers can increase sampling efficiency (i.e. a reduction in the number of units sampled, whilst still retaining the same level of accuracy of survey results) in two ways:

- The statistical business register includes links to additional stratification variables via satellite registers.
- The statistical business register benefits from the improved quality of variables due to the ability to cross-check this register with external sources.

20.46 The use of satellite registers can reduce the response burden on businesses either through increased sampling efficiency or by removing the need to conduct a survey altogether. They may also include additional units not present in the statistical business register, thus extending the coverage of the population of interest.

## **20I - The Example of Intrastat Registers**

20.47 The following paragraphs consider the potential links between statistical business registers and registers of intra-Community operators (Intrastat registers), and the possible benefits deriving from these links. An Intrastat register can be considered as a form of satellite register. This example is of particular interest because the business registers Regulation includes a requirement for a specific variable to be held at legal unit level: "Reference to the register of intra-Community operators drawn up in accordance with Council Regulation (EEC) No 3330/91 of 7 November 1991 on the statistics relating to the trading of goods between Member States" (variable 1k).

20.48 Council Regulation 3330/91 defines the rules for the compilation of statistics relating to the trading of goods between Member States. According to this Regulation, Member States should have had a register of Intra-community operators at their disposal by 1 January 1993. This Regulation was drawn up at the end of 1991, two years before the registers Regulation, therefore the registers Regulation requires a link to the Intrastat register at legal unit level.

20.49 Articles 5 and 6 of Commission Regulation 1901/2000, which implements and amends Council Regulation 3330/91, define a list of minimum data fields to be recorded in the Intrastat register:

- Full name of the person or firm
- Full address including postcode
- VAT registration number
- The year and month of entry in the register
- Where applicable, whether the operator is a party responsible for providing information, or a declaring third party, upon either consignment or receipt

- In the case of a party responsible for providing information; the total value of his intra-Community operations by month and by flow, together with the value of trading of goods between Member States which the operator has mentioned in his periodic tax declaration.

20.50 The links between the statistical business register and the Intrastat register can be analysed according to the following elements:

- Sources of information - Fiscal registers are the main source of information of the Intrastat register, and are usually an important source for statistical business registers.
- Reference units - The registers Regulation identifies three reference units for statistical business registers, the legal unit, the enterprise, and the local unit. The Intrastat Regulation does not define any unit of reference, however, as fiscal registers are the main source of information for Intrastat registers it can be assumed that the unit of reference is generally the legal unit, that is every legal unit responsible for the control of the operator having Intra-Community import/export movements.
- Variables - Commission Regulation 1901/2000 specifies the variables to be included in the Intrastat register. Among these, name and address of the person or firm corresponds to variable 1b of the legal unit in the statistical business register. Another possible common variable is the VAT registration number, which can also appear as variable 1j in the statistical business register.

20.51 Given these similarities, there should be a strong link between the Intrastat register and the statistical business register. Conceptually, the Intrastat register represents a logical subset of the business register corresponding to the legal units with intra-Community exchanges. The subset should be identified via variable 1k of the legal unit in the statistical business register, which should be present by definition in the Intrastat register. If this variable is missing, it may still be possible to establish a link using another identification number e.g. the VAT registration number, or by matching based on name and address.

20.52 It should be noted that there may be some units in the Intrastat register which are not included in the statistical business register, e.g. units classified to NACE sections A, B and L, which are not currently compulsory for statistical business registers, though are included on an optional basis by most Member States.

20.53 Both the Intrastat register and the statistical business register can benefit from the link between them. Specifically, the statistical business register has access to a reliable tool for checking the quality of its own data regarding a limited (in number), but important subset of enterprises. The link between the Intrastat register and the statistical business register may also help to identify inconsistencies, e.g. if the product code of the exchanged goods declared by intra-Community operators is available, this can be compared with the activity code of the statistical business register.

## **20J - Relation to the BR Regulation**

20.54 Article 7 of the business register Regulation states that "Each national statistical institute shall be authorised to collect for statistical purposes information covered by this Regulation which is contained in the administrative or legal files compiled on its national territory, in accordance with the conditions determined by national law". The use of administrative sources, as described in this chapter is therefore considered to be an interpretation of the Regulation. The methodological recommendations concerning the transfer of data from administrative sources, and the creation of satellite registers, go beyond the Regulation.

20.55 Legal unit variable 1k, "reference to the register of intra-Community operators drawn up in accordance with Council Regulation (EEC) No. 3330/91 of 7 November on the statistical relating to the trading of goods between Member States" is compulsory in the business register Regulation. Therefore a link between the business register and Intrastat register is required. The text above concerning this link can be considered as guidelines to aid the implementation of the Regulation rather than as a strict interpretation of the Regulation.



**BUSINESS REGISTER  
RECOMMENDATIONS MANUAL**

**Chapter 21  
Enterprise Groups**

**Status: First Publication - March 2003**

## ENTERPRISE GROUPS

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### 21A - Introduction

21.1 Enterprise groups (or 'groups') are one of the most important ways of external growth. They allow a combination of the advantages of a flexible structure, constituted by a set of juridically autonomous units, with those deriving from the possibility of centralising some particular functions to benefit from economies of scale and scope. Advantages are derived from internalising externalities present in different markets. The activities of enterprise groups expand world-wide, since location of the units is a strategic consideration to gain comparative advantages over competitors.

21.2 The main reasons why enterprises form a group are:

- (a) To control a wider market;
- (b) To increase the domestic productivity through more efficient business management.

21.3 Generally, the economic advantages that an enterprise group intends to achieve are:

- *Integration economies*

Integration economies mean the internalisation of external transactions, e.g. the integration of the production of pre-products to control the price or to avoid cost variations connected to market prices. This can lead to reduced costs from a wider range of activities, which, though different, are complementary, as far as the technology is concerned. Integration economies lead to the formation of vertical groups, where an enterprise takes control over another enterprise either producing raw materials or semi-manufactured products (backward integration) or distributing and selling its final products (forward integration).

- *Scope economies*

These are cost savings coming from a range of activities, which are completely different. This particular advantage is based on the existence of common resources, which can be allocated flexibly, and a greater spreading of risks. The groups formed

for this reason are called conglomerate groups and are set up to diversify activities across several sectors.

## **21B - User Needs**

21.4 The reasons to include information on enterprise groups in business registers are in line with the role of the statistical business register as described in chapter 3. The enterprise group is a statistical unit, defined in Council Regulation No. 696/93 on the statistical units for the observation and analysis of the production system in the Community. The increasing diversity of enterprise structures in the economy leads to a consideration of the role of the enterprise as part of a larger unit, namely the enterprise group, where long term strategies are determined and managed in a centralised way.

21.5 The observational units for Structural Business Statistics (SBS) Regulation are the enterprise and the kind-of-activity unit, but for some sectors and for specific analyses (financial relationships, market concentration) it would be more relevant to consider enterprise group as the observation unit. Even though the discussion of statistics at the group level is only in a starting phase, it should be emphasised that some economic variables are more relevant at the group level than at the enterprise level, particularly:

- operating surplus,
- research and development,
- taxes,
- technological balance of payments,
- stock exchange capitalisation.

Other variables such as intra-firm trade are collected only at the group level.

21.6 Also, building up enterprise groups by delineating their respective sets of legal units is a basis to delineate and profile large and complex enterprises belonging to an enterprise group and thus to improve the quality of the business register and the comparability of SBS statistics among Member States.

21.7 The demand for information on Globalisation results in additional requirements for the business register to record information on enterprise groups. To be a suitable tool for this purpose, the register must contain enterprise group links. The following statistics are currently the most important in this respect:

- Statistics on Foreign Affiliates (FATS)
- Intra-firm Trade Statistics
- Foreign Direct Investment Statistics
- Contributions of international groups to external trade
- Multinational Balance of Payments reporting
- Direct reporting and surveys

21.8 Information on the activities of foreign affiliates of multinational groups is required e.g. for the negotiations for the liberalisation process especially in the service sector as defined under the General Agreement on Trade in Services (GATS). The collection of information on such structures by economic activity and geographic breakdowns requires a substantial improvement in the quality of the

business registers. In particular knowing whether a legal unit is an independent unit or belongs to a domestic or foreign controlled enterprise group (either as a subsidiary or as a group head) will provide the fundamental information to derive the Inward and Outward FATS populations, to be surveyed or the data obtained by combining with other sources.

21.9 In intra-firm trade statistics the focus is on the volume of trade and transfer prices between the members of an enterprise group at the world level. Collecting these data by connecting the business register to the Intrastat and Extrastat registers is one possibility that would not cause additional burden for enterprises and could nevertheless produce results of sufficient quality. The essential pre-condition for this is the inclusion of enterprise groups and information on their links to multinational groups.

21.10 Data on foreign direct investment are gained by the national banks with the support of a register that contains all enterprises that reported a direct investment of a certain amount in one year.

21.11 Central banks gather this information in the framework of the free market policy by direct surveys. To collect the data from the businesses in question, they mostly make use of their own registers.

21.12 In the cases of foreign direct investment and direct reporting / surveys, many central banks have built up own registers. This may lead to redundancy and causes additional costs. A link between central bank registers and statistical business registers, including information exchange between these registers, helps to improve quality and reduce costs, since the amount of information to be investigated decreases. The inclusion of enterprise group links into the statistical business register is again a necessary condition.

21.13 Knowledge about the trade within enterprise groups, e.g. intra-firm transactions and transfer pricing practices, required by national and international users, can be derived by integrating the business register with the Intrastat register and other national administrative registers e.g. those managed by central banks and customs offices.

21.14 Enterprise groups can be used to calculate statistical indicators for measuring the "real" size of enterprises. This is a relevant issue especially concerning the European definition of Small and Medium-sized Enterprises (SMEs), as given in Commission Recommendation 96/280/EC (currently under revision, see Annex)). To conform to the definition in this Regulation, SMEs are not allowed to be controlled by other enterprises. By implementing links of control, the number of SMEs can be estimated more accurately.

21.15 Information on enterprise groups can serve other institutional users, e.g. anti-trust authorities that, according to dissemination policies applied in each Member State, may use this to calculate statistical indicators for market concentration and to define regulation policies for the development and implementation of effective competition both at national level and within the European Union.

21.16 Enterprise groups provide supplementary information for statistical indicators on enterprise demography, to drive economic policies aimed at sustaining new entrepreneurship. There are also many areas, where enterprise group information is likely to be very important in the future, for instance research and development, and labour market statistics.

## 21C - The Statistical Concept of the Enterprise Group

### *The enterprise group as a group of enterprises*

21.17 Council Regulation (EEC) N° 696/93 on Statistical Units defines the Enterprise Group as *"an association of enterprises bound together by legal and/or financial links. A group of enterprises can have more than one decision-making centre, especially for policy on production, sales and profits. It may centralise certain aspects of financial management and taxation. It constitutes an economic entity which is empowered to make choices, particularly concerning the unit it comprises"*.

21.18 Whereas the enterprise is an actor in the economy at the level of the production process, with relative autonomy with respect to the allocation and use of its current resources, the enterprise group is an actor at a more strategic level taking strategic decisions on behalf of its constituent enterprises (e.g. on product policies, on major expansions, etc.).

21.19 Since the enterprise group as a whole is subject to demographic events, the statistical unit "enterprise group" in the register has to be maintained according to special continuity rules differing from those for enterprises.

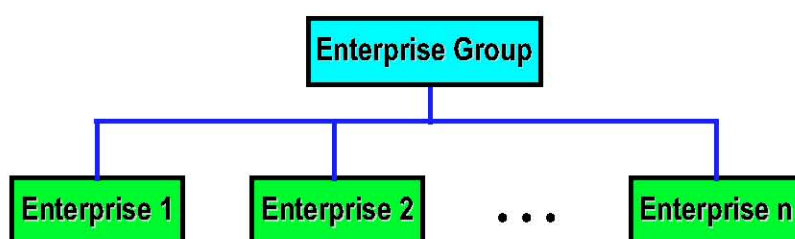
21.20 The attributes (variables) of enterprise groups represent properties of the group as a whole, possibly consolidated properties.

### *"Economic view" of the enterprise group*

21.21 The statistical units Regulation states that an enterprise group is an "association" of enterprises. Since the enterprise is a statistical construct exclusively designed for economic analysis, *hierarchical relations between enterprises are not defined* (contrary to legal units).

21.22 The "association of enterprises" as stated in this Regulation therefore has to be a two-level hierarchy with the enterprise group on top and its constituent enterprises all on the second level (all constituent enterprises of an enterprise group having the same rank). The following diagram illustrates this.

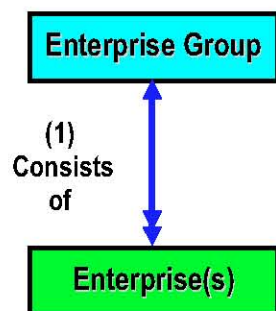
Figure 1: Enterprise group consisting of enterprises:



21.23 Both the enterprise group and its association with its constituent enterprises (the “Economic view” of the enterprise group) have to be recorded in the business register. This means that

- the object enterprise group
  - the attributes (variables) of enterprise group
  - the relationships of enterprise group with its constituent enterprises
- have to be included in the register.

**Figure 2:** Two level hierarchies of enterprise group and its constituent enterprises:



21.24 Relationship (1): “Consists”

➔: Enterprise group *consists of* enterprise(s)

Each statistical unit enterprise group is *always* associated with *one or more* enterprises.

⬅: Enterprise *belongs to* enterprise group

Each enterprise *may* belong to *exactly one* enterprise group.

Enterprise groups must always consist of at least one enterprise. The phrase “may belong to” reflects the fact that not every enterprise is part of an enterprise group. This applies particularly to “simple” enterprises, where the (sole) constituent legal unit has no links of control to any other legal unit.

21.25 The relationship is a one-to-many relationship. Changes in this relationship should be recorded to reflect changes in the composition of an enterprise group in terms of its constituent enterprises over time. This gives rise to the generic attributes (variables) of the relationship:

- Start of association of a specific enterprise with a specific enterprise group
- End of association of a specific enterprise with a specific enterprise group

### **Legal View**

21.26 Two clarifications are necessary in order to make the definition of the statistical units Regulation operational:

- The enterprise group can only be observed through the links between legal units (parent and its subsidiaries)<sup>2</sup>.
- These links are links of control, and the concept of control is the basic one to be used for the delineation of enterprise group.

21.27 These clarifications are contained in the Regulation itself, in Annex III C, explanatory notes 4, where the group head is defined as *"a parent legal unit which is not controlled either directly or indirectly by any other legal unit"*.

21.28 Control refers to the *dominant influence* of a parent unit over the medium and long-term strategies of one or more other legal units (subsidiaries); i.e. the parent unit must be able to influence (directly or indirectly) the decision in the ordinary or extraordinary meetings of all the subsidiaries.

21.29 The *dominant influence* can be exercised in different ways. The acquisition of an absolute majority (50%+1) of shareholdings with voting rights is the main instrument used to take control over a legal unit. On the other hand the absolute majority of ownership of the capital share is neither a necessary nor a sufficient condition to have control.

21.30 It is not a necessary condition because there may be situations in which a relative majority of shareholdings with voting rights is enough to take control. This can be due to:

- (a) absenteeism in the meetings on the part of the other shareholders;
- (b) contracts or agreements affecting control.

21.31 It is not a sufficient condition because the ability to effectively exercise control depends on the ability to actively participate in the decision making process of the meeting. This may be limited by the presence of:

- (a) shareholdings with limited voting rights;
- (b) statutory provisions that limit the transferability of shares;
- (c) temporary suspension of voting rights.

21.32 Effective minority control means having effective control of a unit without holding the majority of voting stock. It does not include indirect control via a majority-controlled subsidiary. The most common case is a minority but large shareholder and a very large number of dispersed small shareholders, none of which holds a significant share of the capital. The minority shareholder can thus exercise effective control insofar as no majority of shareholders is really able to oppose it. However, it is possible that the small shareholders could join forces in order to have more influence over strategic decisions.

21.33 Situations vary considerably from country to country and depend on the legal framework concerning corporate governance, i.e. the legislation that regulates the

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<sup>2</sup> The Annex of the Regulation on Statistical Units, Section II (Part A point 3) states that a legal unit includes: a) Legal persons whose existence is recognised by law independently of the individuals or institutions which owns them or are members of them; b) natural persons who are engaged in an economic activity in their own right.



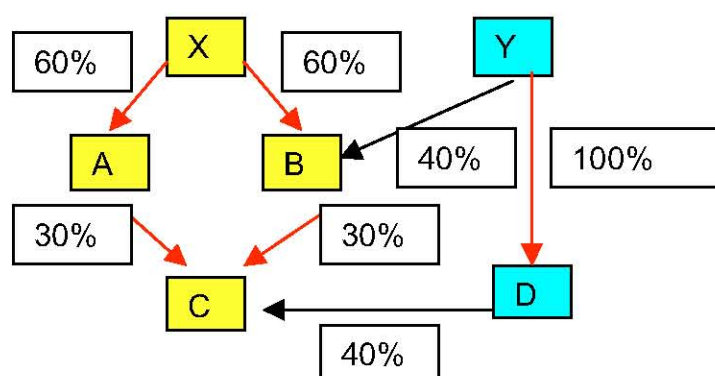
allocation of property rights and control of enterprises in the economy. In particular the principles vary sometimes notably between civil law systems and common law ones.

21.34 Finally, control can be a *de facto* situation, generated by strategies of outsourcing, aimed at reducing costs of production and increasing productivity, such as exclusive sales or supply contracts, that generate dependency of one legal unit on another without any direct participation from the part of the latter in the capital share of the former. A legal unit can thus be captive by another unit without being owned by it. The link may be a commercial contract, which ensures the "parent" legal unit the exclusive rights to the work of the "subsidiary" unit. In the case of natural persons such "subsidiary" units have in business demography also been referred to as false self-employed.

21.35 According to Council Regulation N° 696/93 on Statistical units (Annex III C, Explanatory notes 4), "*The subsidiary enterprises of a subsidiary enterprise are considered to be subsidiaries of the parent enterprise. (...)*". This means that a parent unit may have indirect control over a legal unit (sub-subsidiary) through other subsidiaries. Indirect control does not require the parent unit to own a majority of integrated shareholding in the capital share of the sub-subsidiaries. The difference between control and ownership is shown in Figure 3.

21.36 The example in figure 3 shows that X has indirect control over unit C, even though it owns indirectly  $(60\% \times 30\%) + (60\% \times 30\%) = 36\%$  of its capital share, X controls C through its two subsidiaries A and B, by putting together their voting rights in the meeting of C  $(30\% + 30\%) = 60\%$ . On the other hand Y owns  $(40\% \times 30\%) + (100\% \times 40\%) = 52\%$  of C, but has no power to control it, since the voting rights that it has in its meeting of C amount only to 40% of its capital share. In other words the voting rights resulting from paths X-A-C and X-B-C have to be cumulated to determine actual control.

Figure 3: How control can be different to ownership



21.37 Control is a (direct or indirect) relationship between legal units such that either one legal unit is controlled by exactly one other legal unit, or it is not controlled by any other legal unit. The ownership of a unit or a group of units is related to the holding of its assets, and determines the distribution of financial flows and income. If

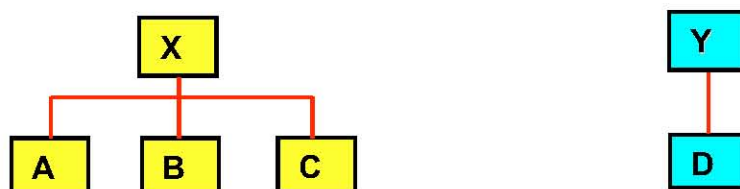


a unit or group of units is owned by shareholders, its ownership is vested in the shareholders collectively and can be seen as diffused among the legal units that own its shares in proportion to their shareholdings, and independently of voting rights.

21.38 In fact, deriving control links from the ownership structure between legal units defines an operational hierarchical structure of the enterprise group with one legal unit at the top (the group head), which is not controlled by any other legal unit and which controls all other legal units in the hierarchy. Therefore it is necessary to also record minority intermediate shareholdings into the business register, in case there is indirect control where the links can only be derived from the complete ownership structure.

21.39 From the above example the following control hierarchies are derived and should be recorded in the business register:

Figure 4: How to record control links from ownership structures



21.40 The group head can be either resident in the country that compiles the business register or abroad. "Group head" always refers to the ultimate (global) group head, not to a local group head, which has a foreign parent.

21.41 If the group head is a resident legal unit it has to be recorded in the national business register as a single legal unit, which, possibly in combination with other legal units, forms an enterprise, according to the principles stated in chapter 7.

21.42 The statistical concept of the enterprise group is different to the accounting concept, as can be derived from the Seventh Council Directive. In fact, as it is stated in explanatory note 3 of section III C of the annex to the statistical units Regulation *"this definition (of accounting groups ...) is not suitable for statistical analysis because they do not constitute mutually exclusive, additive groups of enterprises. A statistical unit known as 'enterprise group' based on the 'accounting group' concept must be defined by applying the following amendments:*

- *consider accounting group at the highest consolidation level (group head) ;*
- *include in enterprise group units whose accounts are entirely integrated in those of the consolidating company;*
- *add majority-controlled units whose accounts are not included in the overall consolidating by virtue of application of one of the criteria allowed by the Seventh Directive, i.e. difference in the type of activity or small relative size;*
- *discount temporary links of less than a year.*

21.43 Enterprise groups that are composed of legal units resident in different countries are called multinational enterprise groups (or transnational enterprise groups). At least two enterprises or legal units of the group are located in different countries.

21.44 The part of a multinational enterprise group, which comprises only the legal units resident in the same country, is called a truncated enterprise group. A truncated group may consist of several units and subgroups, which can appear seemingly unlinked, if their parent is non-resident, but which actually belong to the same multinational group (if information on this is missing, they may be erroneously regarded as separate groups).

Multinational groups have also an EU-dimension and truncation could be applied at the EU level. However, as most large groups operate globally, the problems encountered nationally with truncated group treatment would be met at the EU level.

21.45 An enterprise group composed only of legal units that are all resident in the same country is called an all-resident group (or domestic group; if the latter term is used, it must not be confused with a domestically controlled multinational group).

21.46 A domestically controlled enterprise group is a multinational group controlled by a group head that has its headquarters in the country compiling the business register.

21.47 A Foreign controlled enterprise group is a multinational group controlled by a group head that has its headquarters outside the country compiling the business register (see section 21E for the operational rule concerning the nationality of an enterprise group).

### ***Operational rules for identifying control links***

21.48 Control is a complex concept in economic terms. Statistical operational rules need to rely on observable criteria. Therefore it is sufficient that at least one of the following applies, in order to identify a link of direct or indirect control between two legal units:

- 1) A legal unit directly owns more than 50% of the voting rights of another legal unit (direct control);
- 2) A legal unit indirectly owns more than 50% of the voting rights of another legal unit, through subsidiaries (indirect control);
- 3) A legal unit fully consolidates the accounts of another legal unit, according to the Seventh Directive criteria, and no other legal unit consolidates the same legal unit (control by virtue of full consolidation);
- 4) Administrative sources, collecting declarations in application of specific laws for market regulation, provide the information that a legal unit controls one or a set of legal units, even though it owns less or 50% of its voting rights (minority control) and no other legal unit owns more.

NOTE - It may be possible that two rules (e.g. both cases 1 and 3) could apply simultaneously. As one unit cannot be controlled by two different units (paragraph 21.37), the *de facto* controlling unit should be chosen.

### ***Different kind of enterprise groups***

21.49 The type of control is different for private groups and public groups as from their juridical nature they are dependent on private law or public law.

The private group is an association of enterprises whose group head is a person of private law.

The public group is an association of enterprises whose group head is a person of public law.

According to the Directive 80/723/CEE about the transparency of financial relationships between MS and public enterprises, public powers may exercise a dominant influence on the behaviour of public enterprises, not only when they are owners or have a majority shareholding, but also for the control they are able to exercise over their management or supervision bodies, on the basis of statutory provisions or shareholding division.

Article 2 states that State and other territorial bodies are considered as public owners. A public enterprise is every enterprise on which public owners may exercise, directly or indirectly, a dominant influence as reason of property, financial participation or its regulations.

Dominant influence is presumed when public owners, directly or indirectly, control enterprises by

- a) having subscribed the majority of capital of the enterprise, or
- b) having the majority of votes assigned to the shareholdings that enterprise has issued, or
- c) the ability to designate more than half members of administration, direction or supervision bodies of enterprise.

21.50 According to the structure of control in economic literature pyramidal groups are distinguished from the public companies, as two alternative forms of allocation of property rights and control over enterprises.

The pyramidal group is built through the acquisition of cross or in-cascade shareholdings of one legal unit on another. Such structure allows the ultimate unit to control the whole group of enterprises with a minimum amount of capital invested. Typically on top of pyramidal groups there are natural persons or families. This kind of group guarantees the stability of control since it reduces the vulnerability from hostile take-overs. In general pyramidal enterprise groups are typical of economies with high concentration of property rights on enterprises and less developed financial market.

The public company is an enterprise where property is diffused among a wide body of shareholders. The public company is characterised by a separation between ownership and control. Shareholders renounce their control rights and maintain only their patrimonial rights (dividends and capital gain). They are the owners of a company but their rights are limited since the public company is under the control of managers chosen by a group of command which is usually formed by a shareholder or a trust of shareholders with small relative majority. Other people may succeed to control by acquisition on the market of the scattered shareholdings, when the market quotation falls down. In public companies the stability of control is lower, but the market for corporate control is more contestable. This is seen, from a certain part of the economic literature, as a signal of a higher degree of democracy in corporate

governance and as a powerful instrument to evaluate the efficiency of the management.

## **21D - Operational Rules for the Implementation of the Enterprise Groups into National Business Registers**

### ***Eligibility criteria for legal units to be part of an enterprise group***

21.51 This paragraph describes the criteria that have to be followed in deciding which legal unit may be part of an enterprise group in the national business register and in which position in the hierarchical structure of the enterprise group it is placed.

#### **21.52 Residency criterion**

Although the enterprise group is to be considered a co-ordination unit at the international level, most Member States are currently unable to record non-resident legal units other than group heads or first foreign parents in the national business register. This is generally due to the lack of information on such legal units in the administrative sources used to build up and maintain the business register. Often these sources do not provide an identifier for the non-resident units and this makes it difficult to identify them from one year to another in the maintenance of the business register. Member States that already record non resident legal units in the business register should continue to include them; it is recommended that all Member States should be able in the future to record some basic information on non-resident legal units (foreign subsidiaries) that are part of domestically controlled multinational groups.

#### **21.53 Natural persons**

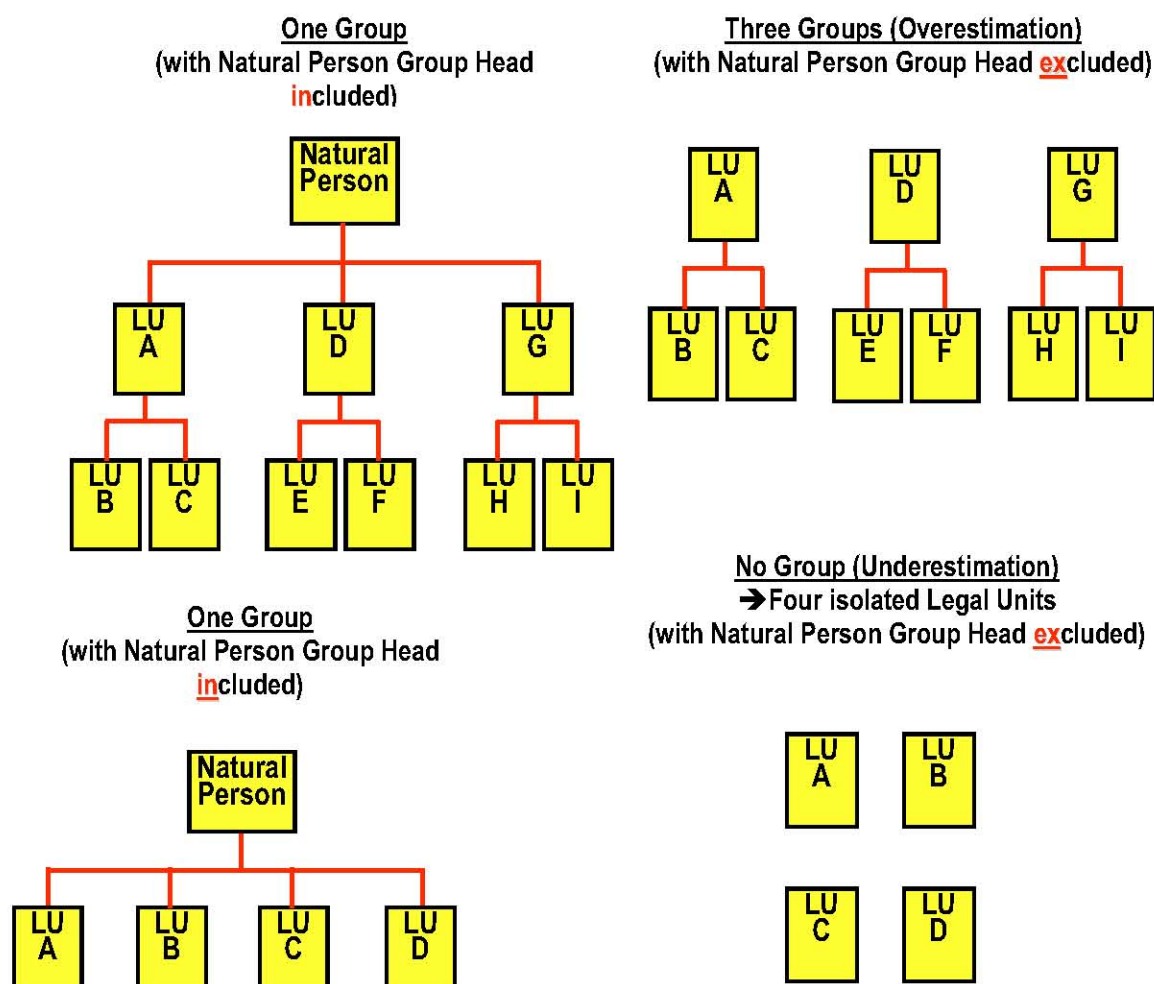
The concept of control implies that natural persons can not be part of a chain of control unless they are at the top of the structure. Nevertheless unlimited partnerships can form part of an enterprise group if the partners are formed or owned by other legal units. This can be obvious by some form of wording in the name of a company. However it is not obligatory in all countries and all cases to have such a way of identifying such cases.

A natural person can only be registered as group head if it is a legal unit, as defined in the statistical units Regulation (Section II of the Annex - Part A, point 3). Nevertheless, excluding natural persons, who are not also legal units (i.e. they are not engaged in an economic activity, see paragraph 21.26), from the possibility of being a group head may have far-reaching consequences. As legal units are defined in national legislation, it is possible that in some countries natural persons controlling an enterprise group are in most cases also legal units, while in some other countries they are not. Thus excluding natural persons from being group heads can seriously reduce international comparability of enterprise groups.

Another consequence of excluding natural persons is the introduction of a bias in the number of enterprise groups in a country. The number of enterprise groups can either be overestimated or underestimated. It will be overestimated if the natural person in fact controls more than one group head. It can be underestimated if the natural person controls more than one legal unit. This consequence will affect

comparisons among MS statistics on enterprise group. The effect of excluding natural persons as group head on the number of enterprise group in one country is illustrated by the following examples:

Figure 5.



If the group head is a natural person, the fact that several units are under unique control should be stored, where possible, at least for the largest enterprise groups. To store the data of the controlling person is also useful, especially if there are non-resident units. The users generally need the ultimate controlling unit without the constraint of being a legal unit. Both Foreign Direct Investment and Foreign Affiliates Statistics would need and use the ultimate controlling institutional unit, whether an enterprise or a natural person.

Therefore the feasibility of including natural persons should be seen from a practical viewpoint: i.e. how important their shareholding is and if information on them is available. As the importance of the inclusion/exclusion of natural persons as group head varies by country, studies on their effect at national level are recommended. In the longer term, a solution, which could fulfil the user needs (if possible), minimise the bias and guarantee an acceptable degree of comparability, should be agreed.

#### 21.54 Single legal units

From the viewpoint of the national business register, a truncated enterprise group may coincide to a single legal unit *if and only if* the unit is resident in the country that compiles the business register, but belongs (either as group head or as subsidiary) to a multinational group, where all other legal units are non-resident. This exception is introduced as a convention to avoid possible inconsistencies among Member States.

In fact, if the legal unit in question is a subsidiary, then national business registers should record its group head even though it is located abroad.

Otherwise, if the legal unit in question is a group head, there may be no indication in the national business register that this unit is part of a group. In such a case the situation would differ among Member States depending on whether non-resident legal units (foreign subsidiaries) were recorded in the business register or not: if the national business register does not record the foreign subsidiaries, the group head could be counted as an independent unit, affecting the comparability of the number of enterprise groups with the Member State(s) where the subsidiaries are recorded.

#### ***Relationship between legal units, enterprises and enterprise groups***

21.55 In this section the logical and hierarchical relationships between legal units, enterprises and enterprise groups are clarified. This is necessary because both, enterprises and enterprise groups, consist of legal units<sup>3</sup>. Nevertheless *"the enterprise is the smallest combination of legal units (...) for the allocation of common resources"*, while the enterprise group is a more complex organisational unit based on *"legal and/or financial links (...) for policy on production, sales and services. It may centralise certain aspects of financial management and taxation"*.

21.56 Although the statistical units Regulation defines an enterprise group as an "association" of enterprises", hierarchical relations between the enterprises within an enterprise group cannot be defined in the same way as for legal units. In fact the enterprise is a statistical construct exclusively designed for economic analysis (see chapter 19).

21.57 Therefore, as has already been stated earlier in this chapter, the enterprise group is built upon links between a parent and its subsidiary legal units.

21.58 Once the enterprise group is reconstructed from the legal units, the enterprises must be delineated within the set of legal units that are the basis of the enterprise group: the enterprise either consists of a single legal unit ("Simple enterprise") or of a combination of two or more legal units ("Complex enterprise"). It follows that an enterprise group must consist only of complete enterprises, not parts of them.

21.59 An enterprise group can coincide with one single enterprise, if and only if it is an enterprise (see chapter 7) that consists of more than one legal unit (see the exception in paragraph 21.54). An enterprise group that consists of only one enterprise can be called a quasi-group.

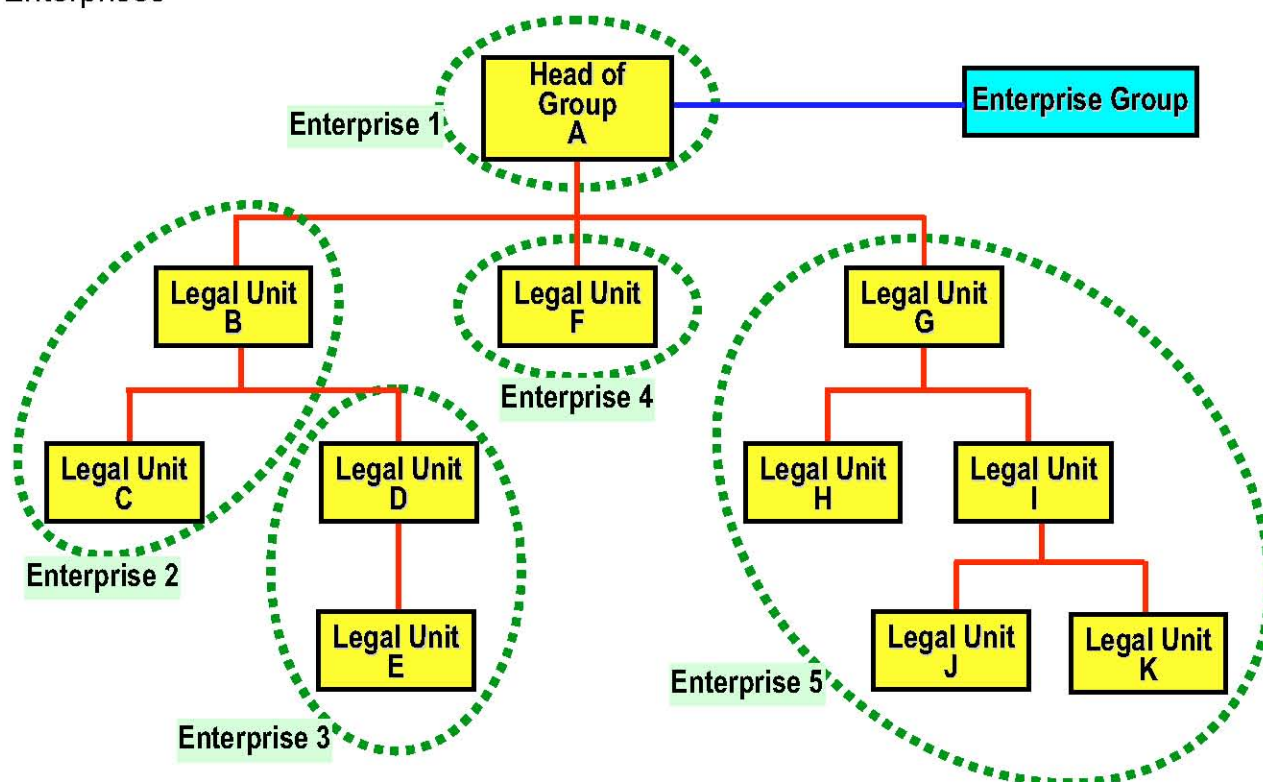
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<sup>3</sup> A detailed formalisation of such relations in a data model is presented in a paper prepared by Mr Willee and available on BRnet.



21.60 Both views of the enterprise group, as composed of legal units and of enterprises have to be documented in the register. The following schematic example illustrates this.

Figure 6: Legal Units as a common basis of the enterprise group and its constituent Enterprises



21.61 The “association of enterprises” mentioned in the Council Regulation (EEC) N° 696/93 on Statistical Units therefore has to be intended as a two-level hierarchy, having the enterprise group on top and all its constituent enterprises on the second level (all constituent enterprises having the same rank). This was illustrated in Figure 1.

## 21E - Variables to be Recorded in the National Business Register

21.62 The list of variables is a logical one: it does not mean that all these variables have to be separately stored, they can also be derived from the business register when needed. The way to record them depends on technical arrangements: the enterprise group may be recorded as a separate unit (and this is recommended) or as a system of links between units. The list is independent from the sources used in individual Member States.

21.63 Costs and benefits of recording each variable have been considered, and, following that, the variables have been classified according to priority. The importance, as well as the difficulty, of recording some variables may vary by

country. Therefore at this stage, according to the identified needs of users, the highest priorities are defined as follows:

- (1) the importance of finding out which enterprises (and their legal units) belong to enterprise groups and which are independent;
- (2) identification of the economic importance of enterprise groups;
- (3) identification of the group heads and their location.

21.64 The majority of the variables below are regarded as "second priority" which means that, at this stage, the variables are not compulsory, but they will become desirable in future to respond to other users' needs. Member States should therefore start to consider and plan for the recording of such variables.

#### **21.65 Variables for the Legal Units belonging to an enterprise group**

The following variables should be recorded for each resident legal unit belonging to an enterprise group, in addition to those requested in the business register Regulation. Variable 5 replaces variables "1g"-1h" in the business register Regulation.

- 1) Identifier of the enterprise group to which the unit belongs
- 2) Identifier of the group head (*second priority, if non-resident*)
- 3) Date of association to the group (*second priority*)
- 4) Date of separation from the group (*second priority*)
- 5) Identity number of the first legal unit in the register which directly or indirectly controls the legal unit; or, failing that, name and address of the first legal unit which directly or indirectly controls the legal unit
- 6) Identity number(s) of the legal unit(s) in the register directly controlled by the legal unit; or, failing that, name(s) and address(es) of the legal unit(s) directly controlled by the legal unit (*second priority*)
- 7) Shares (%) by owner (direct ownership), if owns at least 10 % (*second priority*)

#### **21.66 Variables for the Enterprises belonging to an enterprise group**

- 1) Identifier of the enterprise group to which the enterprise belongs
- 2) Identifier of the group head (*second priority, if non-resident*)

#### **21.67 Variables for the Enterprise Group**

- 1) Identifier of the group
- 2) Name of the group
- 3) Identifier of the group head; equals identifier of the legal unit in the domestic business register if the group head is resident; or identifier or name and address of the group head, if it is non-resident or natural person
- 4) Date of commencement of the group (*second priority*)
- 5) Date of cessation of the group (*second priority*)
- 6) Nationality of the group (country of decision-centre)
- 7) Countries where enterprises are located (*second priority*)
- 8) Principal activity (at NACE 2-digit level)



- 9) Secondary activities (at NACE 2-digit level), if they amount to 10 % of the total for all activities of the gross value added at factor cost for each; or account for 5 % or more of national activity of this type (*second priority*)
- 10) Number of enterprises belonging to the group
- 11) Number of legal units belonging to the group
- 12) Number of persons occupied
- 13) Consolidated Turnover (*second priority*)
- 14) Type of enterprise group:
  1. All-resident group
  2. Domestically controlled truncated group
  3. Foreign controlled truncated group
  4. Foreign part of the Domestically controlled group (*second priority*; all variables for this type are of second priority)

#### 21.68 ***Variables for the Group Head***

- 1) Identifier of the group head (*second priority, if non-resident*)
- 2) Name and address of the group head
- 3) Country of residence of the group head
- 4) Date of commencement as group head (*second priority*)
- 5) Date of cessation as group head (*second priority*)

#### 21.69 ***Categories of enterprise group variables***

The enterprise group variables can be arranged into different categories in a similar way to the variables for legal units, enterprises and local units as given in paragraph 5.6.

##### Category 1: Identification variables

- (1) Identifier of the group
- (2) Name of the group

##### Category 2: Descriptive (stratification) variables

- (6) Nationality of the group (country of decision-centre)
- (7) Countries where enterprises are located (*second priority*)
- (8) Principal activity (at NACE 2-digit level)
- (9) Secondary activities (at NACE 2-digit level) (*second priority*)
- (12) Number of persons occupied
- (13) Consolidated Turnover (*second priority*)
- (14) Type of enterprise group:
  1. All-resident group
  2. Domestically controlled truncated group
  3. Foreign controlled truncated group
  4. Foreign part of the Domestically controlled group (*second priority*; this goes beyond the national business register and is not available in most countries)

##### Category 3: Demographic variables

Generic variables could be approximated by comparison of the business register at different times.

The enterprise group as a whole has to be recorded<sup>4</sup>, e.g. in a snapshot on a regular basis to reflect its limited life span in the register, giving rise to the generic attributes (variables):

- (4) Date of commencement of the group (*second priority*)
- (5) Date of cessation of the group (*second priority*)

If demographic analyses of the population of enterprise groups are to be performed, the following generic attributes<sup>5</sup> should be assigned to the enterprise group:

- Description of demographic event, that gave rise to the creation of the group
- Description of demographic event, that gave rise to the cessation of the group

#### Category 4: Other variables.

- (3) Identifier of the group head
- (10) Number of enterprises belonging to the group
- (11) Number of legal units belonging to the group

### **Operational rules for the variables**

#### *21.70 Identifier of the enterprise group*

The identifier is an internal code in the business register and should refer to the whole group (not only to the truncated part). The identifier should ideally be given in the country, the nationality of which the group is deemed to have (see Nationality of the enterprise group, below). It is recommended that in the future a unique EU-wide identifier be given to each enterprise group.

The identifier of the group should not be the same as the identifier of the group head. This is important in dealing with enterprise group demographic changes and applying enterprise group continuity rules (currently under preparation).

#### *21.71 Identifier of the group head*

If the global group head is a legal unit in the national business register, its identifier should be used. It is recommended that in the future a unique EU-wide identifier be given to each group head. This identifier should ideally be the identifier of the unit in the business register in the country of residence of the group head (see Country of residence of the group head, below). Failing this, it can be the identifier in an international register (e.g. Dun and Bradstreet uses the local company registration numbers) or a dummy reference can be used.

#### *21.72 Date of association to the enterprise group*

This cannot be earlier than Date of commencement of the enterprise group. In practice it is often the date when the identifier of the group is first stored for the unit. The importance of dates varies, in some countries they are used and seen important, in others not.

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<sup>4</sup> All contents of the register have to be recorded in historical files (entities, relationships and attributes (variables)). This makes the difference between a register and an ordinary file.

<sup>5</sup> The measures to allow for the documentation of demographic movements of register units are a general concept, applicable to several types of units, and cannot be discussed here in detail.

*21.73 Date of separation from the enterprise group*

This cannot be later than Date of cessation of the enterprise group. This is generally the date when the unit ceases to exist or is sold to another group. The importance of dates varies, in some countries they are used and seen important, in others not.

*21.74 Identity number of the first legal unit in the register, which directly or indirectly controls the legal unit or, failing that, name and address of the first legal unit which directly or indirectly controls the legal unit*

This variable defines the upward control link and it is sufficient to track the entire group. Without this variable the group structure cannot be established, neither can the first foreign parent be found. For checking reasons it may be also useful to record the downward link (next variable), especially in cases when there is only one unit, parent or subsidiary, of the enterprise group in the business register.

*21.75 Identity number(s) of the legal unit(s) in the register controlled by the legal unit or, failing that, name(s) and address(es) of the legal unit(s) controlled by the legal unit*

This variable defines the downward control link(s) and it is useful for consistency and error checking, as it can be obtained by reversing the upward control link. If the control link recording system in the business register automatically records both upward and downward links, no extra work is involved. The most important case is when only the parent unit is resident and all subsidiaries are abroad.

*21.76 Shares (%) by owner (direct ownership), if owns at least 10 %*

Recording the percentage share ownership is important for identifying indirect control links (or checking the information available on these in administrative sources), as well as for identifying units for FATS. In direct investment statistics, as reported in the balance of payments, shareholdings of over 10% are considered. It is also useful in distinguishing autonomous and partner SMEs from linked units, in identifying associate relationships and trade interest links and thus helps in dealing with monopolies policy. Recording shares below 10 % (portfolio investment) is likely to be too burdensome for register updating.

*21.77 Name of the enterprise group*

It is recommended that a generally known unique EU-wide or preferably a global name be given to each enterprise group. The name should ideally be given in the country, the nationality of which the group is deemed to have (see Nationality of the enterprise group, below).

*21.78 Date of commencement of the enterprise group*

The date refers either to a date when a new enterprise group is born (the date when a controlling link is established between two legal units, where no group existed before), or other creation date of a new group (by merger or break-up). The birth of a new enterprise group may be difficult to define in practice, if the smallest groups are not monitored. The date from which the group is being monitored can then be used as a proxy. The importance of dates varies, in some countries they are used and seen important, in others not.

*21.79 Date of cessation of the enterprise group*

Cessation of an enterprise group means either death of the enterprise group (dissolution of the links of control between the units belonging to the group), or (more commonly) other cessation date by merger with or take-over by another group, or break-up into two or more groups. The importance of dates varies, in some countries they are used and seen important, in others not.

#### *21.80 Nationality of the enterprise group*

The concept of “nationality of the group” should be used to refer to the country where the main decision-making centre is located. Most often this is the country where the headquarters are located. This is often, but not always, the country of registration of the group head.

#### *21.81 Countries where non-resident legal units are located*

This is relevant for enterprise group type 2. This information may be obtained from the consolidated balance sheets drawn by resident group heads, where the list and location of the consolidated non-resident units may be reported.

#### *21.82 Principal and secondary activities*

The principal activity is identified by the top-down method as the activity, which contributes most to the total value added. When assigning the principal activity to the group it is advisable to rank the main activities in descending order of importance, including their shares. Failing to use value added, turnover or employment can also be used as criteria. Principal and secondary economic activities can be inferred from the economic activities of the enterprises composing the enterprise group. In order to give the enterprise group a principal and secondary activity a standard methodology should be studied according to the European principles of classification.

#### *21.83 Number of enterprises belonging to the enterprise group*

The resident/truncated part can be directly added up from the register.

#### *21.84 Number of legal units belonging to the enterprise group*

The resident/truncated part can be directly added up from the register.

#### *21.85 Number of persons occupied*

The resident/truncated part can be directly added up from the register.

#### *21.86 Consolidated Turnover*

Turnover is an important size indicator, but difficult to calculate, especially if consolidated figures are required.

#### *21.87 Type of enterprise group*

Enterprise group types 1, 2 and 3 can also be inferred from other variables; type 4 is currently available in only a few Member States. For this reason, all data fields relating to type 4 units are envisaged to be recommended rather than compulsory. As the enterprise group type is an important stratification variable, and the importance of some other variables vary according to the type; it may be useful to record it separately.

#### *21.88 Name of the group head*

It is recommended that a generally known unique EU-wide or preferably a global name be given to the group head. The name should ideally be given in the country, where the group head is registered (see Country of residence of the group head, below).

#### *21.89 Date of commencement as group head*

This can be later but not earlier than Date of commencement of the enterprise group. The continuity of the enterprise group may remain when the group head changes. The importance of dates varies, in some countries they are used and seen important, in others not.

#### *21.90 Date of cessation as group head*

This can be earlier but not later than Date of cessation of the enterprise group. The continuity of the enterprise group may remain when the group head changes. The importance of dates varies, in some countries they are used and seen as important, in others not.

#### *21.91 Country of residence of the group head*

This is the country where the head office of the group head is located. Note that 'country' can also mean a territory. For a list of countries and territories, and which of them belong to the EU, other Europe, etc., the list given in the Balance of Payments Vademecum can be used (see the BoP web site in CIRCA).

### **21F - Sources**

21.92 The main difficulties encountered for the integration of information on enterprise groups into the business register are both methodological and practical. On the methodological side there is the issue of harmonising the concepts and definitions among Member States and also among different institutions within Member States. From the practical side there is the difficulty of reaching the necessary co-operation among national independent institutions managing such data, as well as that of finding sources of an acceptable quality.

21.93 The need to measure trade flows and investment among parent units and subsidiaries across countries will be fully satisfied if trans-border control links between units in different national registers can be established. At least the first foreign control and where available the ultimate foreign control shall be registered.

21.94 Some basic requirements can be fulfilled in the short term. As a first priority the legal units and enterprises belonging to the group must be known, as well as the group head. Secondly the whole group structure including direct and indirect links of control (but not all shareholdings) is required. As this involves a great deal of work, only the largest groups can be manually checked and profiled. For smaller groups automatic algorithms are recommended. It is recommended that these algorithms reflect the logic and principles deducible from concepts, definitions and operational rules contained in this manual.

21.95 The sources to collect, update and check data on enterprise group may be quite different in nature:

(1) *Administrative sources (as discussed in chapter 20);*

- *Public sources;*
- *Private sources;*

(2) *Statistical surveys.*

### **Administrative public sources**

21.96 The use of administrative sources has grown in number and scale over the last decade because it allows substantial reductions in costs and statistical burden on respondents.

In particular the specific advantages obtained by using these sources are:

- a good coverage of the population of interest, often due to legal obligations;
- a quick means of identification of new businesses;
- a relative stability in the time series, which is suitable for making cross-sectional and longitudinal analyses.

Weaknesses of such sources include:

- possible delay in the updating of information;
- the specification of the attributes belonging to the variables that may be not accurate;
- the fact that they are managed by different institutions (problems in data exchange)
- they contain information on the creation and existence of legal units, which are not primarily collected for statistical purposes, and therefore concepts and definitions may be different between different sources and from the statistical ones.

21.97 Administrative public sources mostly used by MS include:

- declarations and returns for Value Added Tax (VAT). They cover legal and natural persons obliged to pay VAT. It is necessary to consider that businesses below a certain threshold and/or operating in certain economic activities are considered exempt in some VAT systems.
- personal income tax data and business taxation data, generally collected by the tax system;
- compulsory business registration systems administered by Chambers of Commerce or Trade Registers. They are often the main sources for information on legal units and sometimes on local units. Coverage may be limited to particular legal forms and industries;
- published Balance Sheets, consolidated accounts and annual reports. They contain important information on the structure of direct and indirect ownership; information from this source needs to be treated according to the recommendations stated in this manual, i.e. reconstructing the statistical enterprise group from the accounting group;
- archives held by central banks, generally concerning only financial and banking groups;
- archives held by public regulators of public utilities and financial services.

### **Administrative private sources**

21.98 These sources allow Member States that have never collected information on enterprise groups the chance to catch up quickly at a reasonable cost, but it is strongly advised to check the quality of the sources used in terms of concepts and

definitions adopted and the coverage; these sources can be used to check data on enterprise groups or to cover some specific variables.

Among the *administrative private sources* it is possible to consider:

- private databases;
- the press;
- credit-rating agencies;
- information published in reports;
- business information published on the Internet;
- contacts with enterprises.

#### **21.99 Statistical surveys**

These play a leading role in business statistics systems.

Taking into account statistical surveys concerning enterprise groups used in various Member States, they include:

- economic census;
- annual inquiries asking holding companies about the financial structure of the group they control;
- annual sample surveys on structural statistics;
- annual surveys on large and complex enterprises;
- periodic surveys aimed at checking the quality of the business register.

21.100 Countries currently collecting and updating data on enterprise groups generally use more than one source to take advantage from statistical merging of different information. These three types of sources should be used to identify the set of variables necessary for the registration and treatment of enterprise groups in business registers.

### **21G - Confidentiality**

21.101 One main objective of the internal market is to allow enterprises to compete on the same level in all the Member States. Therefore the knowledge concerning European enterprise groups is useful for the European Commission.

21.102 Eurostat and national statistical institutions should work towards allowing exchange of information for statistical purposes, in order to be able to delineate European enterprise groups.

21.103 According to Council Regulation No 322/97, statistical confidentiality shall mean the protection of data concerning single statistical units obtained for statistical uses or indirectly from other sources (i.e. administrative sources) “against any breach of the right to confidentiality.” Article 10 of the Regulation indicates that statistical confidentiality is a principle that governs Community statistics, in order to ensure the best possible quality.

21.104 Considering the Council Regulation (EURATOM, EC) No 1588/90 it is possible to define the following terms for the treatment of confidentiality in enterprise groups:

- a- *Confidential statistical data, as defined in Article 13 of Council Regulation No 322/97 on Community statistics*

1. Data used by the national authorities and the Community authority for the production of Community statistics shall be considered confidential when they allow statistical units to be identified, either directly or indirectly, thereby disclosing individual information.

To determine whether a statistical unit is identifiable, account shall be taken of all the means that might reasonably be used by a third party to identify the said statistical unit.

2. By derogation from paragraph 1, data taken from sources which are available to the public and remain available to the public at the national authorities according to national legislation, shall not be considered confidential.

*b- Statistical purposes*

Data used exclusively for the production of statistical tables or implementation of statistical surveys and analyses within the national statistical programme;

*c- Direct identification*

The possibility of deducing the identity of a statistical unit from its name or address or from an allocated and published identification number;

*d- Indirect identification*

The possibility of deducing the identity of a statistical unit from other information than those under point c.

21.105 The different policies concerning confidentiality in national statistical institutes of Member States include the following:

1. all individual data are confidential;
2. some data can be transmitted to government users;
3. some disclosure is allowed after explicit approval by the respondent;
4. aggregate information can be made available to all users, provided they do not violate indirect identification.

21.106 At present, the main reasons for confidentiality constraints in Member States (and against the exchange of information among statistical institutes) are:

- statistical law and laws concerning privacy;
- statistical practices;
- the functions performed by the national statistical institute;
- the political climate.

21.107 Confidentiality is currently the biggest barrier to development, as exchange of multinational group information between national statistical institutes is now forbidden in the national legislation in almost all countries. There is a clear need to adjust European legislation to remove the restrictions concerning the exchange of basic multinational enterprise group information at EU level.

## **21H - Relation to the BR Regulation**

21.108 The Regulation does not require enterprise groups to be recorded in business registers and the recommendations given in this chapter go beyond the Regulation.

The interpretation of two optional legal unit variables, 1g (name and address of any non-resident legal unit, other than a natural person, which controls the legal unit) and 1h (identity number of the legal unit in the register which controls the legal unit),



which were discussed in Chapter 5, paragraph 5.98, are further elaborated in this chapter.

## ANNEX

### European legislation on enterprise groups

This section contains extracts from the main relevant European legal texts concerning enterprise groups, with their interpretation and their uses. The sources considered here are the following:

- 1) Council Regulation (EEC) N° 696/93 on statistical units for the observation and analysis of the productive system in the Community
- 2) Seventh Council Directive (83/349/EEC) of 13 June 1983 based on article 54 (3) (g) of the Treaty on consolidated accounts
- 3) European legislation on small and medium-sized enterprises (Commission Recommendation 96/280/EC);
- 4) Transparency Directive (88/627/EEC);
- 5) Second Council Directive (89/646/EEC) on the co-ordination of laws, regulations and administrative provisions concerning credit institutions.
- 6) Council Regulation EC/1606/2002 “Application of International Accounting Standards”.

➤ **1) Council Regulation (EEC) N° 696/93 on statistical units for the observation and analysis of the productive system in the Community.**

Chapter 21 is based on the statistical definition of the enterprise group, as given in this Regulation. A considerable part of the chapter discusses how to make the definition operational. How the statistical concept of enterprise group can be derived from the accounting group, as defined in the Seventh Council Directive 83/349/EEC, is discussed in paragraph 21.42.

➤ **2) Seventh Council Directive 83/349/EEC**

*Definition of control*

According to the Seventh Council Directive 83/349/EEC, a group is presumed to exist when at least 20% of the capital or voting rights of a company is held or controlled by another company and no other single shareholder holds more. According to the Consolidated Accounts Directive a control relationship exists when:

1. a parent has a majority of the voting rights of the shareholders or members of a subsidiary (Article 1(1)(a));
2. the parent is a shareholder and has the right to appoint or remove the majority of the directors on the board in the controlled company (Article 1(1)(b));
3. the parent is a shareholder or a member and exercises a “dominant influence” over the subsidiary by means of a contract or of a provision in the company’s memorandum or articles of association (Article 1(1)(c));
4. the parent controls alone, pursuant to an agreement with other shareholders or members of the subsidiary undertaking, a majority of the shares or members’ voting rights (Article 1(1)(bb)). Finding an exact definition of “agreement” was left to the Member States to define;

5. the parent exerts “dominant influence” by means not mentioned above. What other means could give the parent “dominant influence” was left to the Member States to define, so control perimeters are not comparable across Member States;
6. the parent manages itself and the subsidiary undertaking on a unified basis (Article 1(2)).

### *Type of undertakings to be consolidated*

For the purposes of the Seventh Council Directive 83/349/EEC, a parent undertaking and all of its subsidiary undertakings shall be consolidated if either the parent's undertaking or one or more subsidiaries' undertakings are established as one of the following types of company:

- 1) public companies limited by shares or by guarantee;
- 2) private companies limited by shares or by guarantee.

A list of undertakings to be consolidated in the EU Member States is available in the Seventh Council Directive.

### *Methodologies to consolidate accounts*

The methodology of consolidation varies according to the type of shareholding. When there is a situation of exclusive control it is advised, to use the global integration method; this method consists of the cancellation of all internal transactions between the consolidating unit and the subsidiaries, and between individual subsidiaries, in order to eliminate double counting before proceeding to the summation into a single account.

When there is a joint control, the accounts should be consolidated according to the proportional integration method: it means that in the balance of the group there is the value corresponding to the capital share in the controlled unit.

When there is a notable influence, the accounts should be valued according to the equivalency method. This is not a method of consolidation: simply, the historical value of acquisition of the sharing is replaced by the share of the parent in the owner's equity of the subsidiary.

If an investment was acquired and held exclusively with the intent to dispose of it in the near future, it should be accounted for according to the cost method.

### ➤ **3) European legislation on small and medium-sized enterprises**

The Commission Recommendation 96/280/EC concerns the definition of Small and Medium-sized Enterprises (SME).

*Note - This definition is currently being updated: Commission proposes to increase the financial thresholds of small and medium enterprises (24 January 2003).*

Small and medium-sized enterprises are defined as enterprises which:

- have fewer than 250 employees, and
- have either, an annual turnover not exceeding Euro 40 million, or an annual balance-sheet total not exceeding Euro 27 million,
- conform to the criterion of independence (below).

'Small enterprise' is defined as an enterprise which:

- has fewer than 50 employees and

- has either, an annual turnover not exceeding Euro 7 million, or an annual balance-sheet total not exceeding Euro 5 million,
- conforms to the criterion of independence.

Within the SME category, micro-enterprises are defined as enterprises having fewer than 10 employees.

Loss of SME status only occurs if the thresholds are exceeded over two consecutive financial years.

Each SME must be independent - i.e. 25% of the capital or the voting rights may not be owned by one enterprise, or jointly by several enterprises, falling outside the definition of an SME. This threshold may be exceeded, maintaining the status of SME if:

- the enterprise is held by public investment corporations, venture capital companies or institutional investors, provided no control is exercised over the enterprise;
- the capital is spread in such a way that an enterprise can legitimately declare that it is not owned up to 25% by one or more enterprises falling outside the definitions of an SME.

#### ➤ **4) Transparency Directive (88/627/EEC)**

This Directive considers the rules (concerning the notice to the competent authority) that a natural person or legal entity must follow when it acquires or disposes of a holding in a company, either directly or through intermediaries. The definition of control corresponds to the definition in the Seventh Directive (Point 1,2,4).

#### ➤ **5) Second Council Directive 89/646/EEC**

This Directive considers the co-ordination of laws, regulations and administrative provisions relating to the business of credit institutions. In particular it provides a definition for qualifying holdings and branches within the credit institution sector.

According to the Directive:

- a qualifying holding shall mean a direct or indirect holding in a company which represents 10% or more of the capital or of the voting rights or which makes it possible to exercise a significant influence over the management of the company owned: any natural or legal person who intends to set up, directly or indirectly, such a qualifying holding must inform the competent authorities, declaring the size of the intended holding.

No credit institution can have a qualifying shareholding the amount of which exceeds 15% of its own funds in an undertaking which is not a credit or a financial institution: the total amount of qualifying holdings in these enterprises may not exceed 60% of its own funds.

#### ➤ **6) International Accounting Standards (IAS)**

The conclusions of the European Council in 2000 entailed an accelerated completion of the Single Market for Financial Services. A priority objective identified was the creation of common financial reporting standards. The Commission concluded that

the International Accounting Standards (IAS) issued by the International Accounting Standards Board would become the EU-wide accounting system demanded by the logic of the Single Market.

Within this context, several legal acts were adopted in the following years, the most relevant being the Council Regulation (1606/2002) "Application of International Accounting Standards". The IAS Regulation requires publicly traded companies to apply International Accounting Standards for the preparation of their consolidated financial statements, at the latest by 2005. Member States are left the options to permit or require: (1) publicly traded companies to prepare non-consolidated accounts in conformity with IAS and (2) other companies to prepare their consolidated and/or non-consolidated accounts in conformity with IAS.

A related legal act to be soon adopted in order to increase coherence of the EU accounting rules with IAS principles is a Directive modernising the 4<sup>th</sup> and 7<sup>th</sup> Accounting Directives.

The definitions relevant for enterprise groups are presented in IAS 27 "Consolidated Financial Statements and Accounting for Investments in Subsidiaries". Other related parts of IAS are 1. Presentation of Financial Statement, 14 Segment reporting, 22 Business combinations and 24 Related party disclosures.

### **Scope of IAS 27**

1. This Standard should be applied in the preparation and presentation of consolidated financial statements for a group of enterprises under the control of a parent.
2. This Standard should also be applied in accounting for investments in subsidiaries in a parent's separate financial statements.
4. Consolidated financial statements are encompassed by the term "financial statements" included in the Preface to International Accounting Standards.
5. This Standard does not deal with:
  - (a) methods of accounting for business combinations and their effects on consolidation (see IAS 22 Business Combinations);
  - (b) accounting for investments in associates (see IAS 28, Accounting for Investments in Associates); and
  - (c) accounting for investments in joint ventures (see IAS 31, Financial Reporting of Interests in Joint Ventures).

### **Definitions**

6. The following terms are used in this Standard with the meanings specified:

Control (for the purpose of this Standard) is the power to govern the financial and operating policies of an enterprise so as to obtain benefits from its activities.

A subsidiary is an enterprise that is controlled by another enterprise (known as the parent).

A parent is an enterprise that has one or more subsidiaries.

A group is a parent and all its subsidiaries.

Consolidated financial statements are the financial statements of a group presented as those of a single enterprise.

Minority interest is that part of the net results of operations and of net assets of a subsidiary attributable to interests which are not owned, directly or indirectly through subsidiaries, by the parent.